AIR FORCE

AD-A185 294

H
U
M
A
N

R
E
S
O
U
R
C
E
S

LABORATORY

JOB PERFORMANCE MEASUREMENT SYSTEM
TRAINER'S MANUAL

Sheryl A. Bierstedt
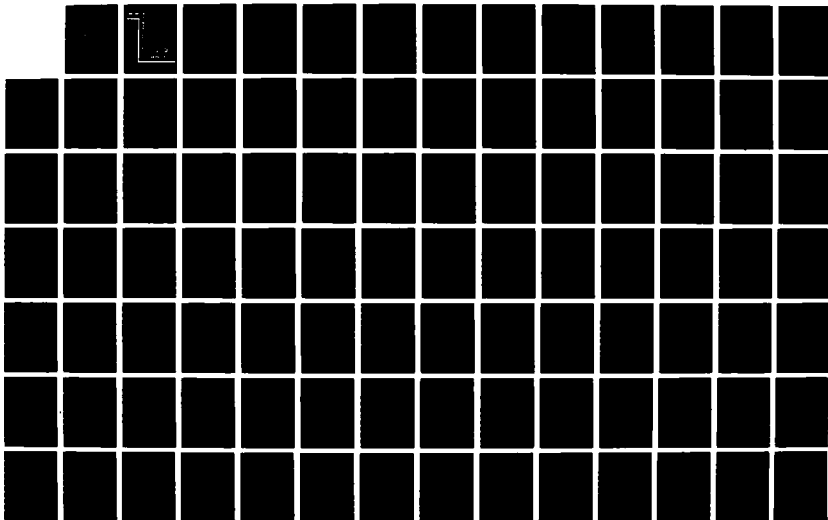
Universal Energy Systems, Inc.
8961 Tesoro Drive, Suite 600
San Antonio, Texas 78217

Jerry W. Hedge

TRAINING SYSTEMS DIVISION
Brooks Air Force Base, Texas 78235-5601

DTIC
ELECTE
OCT 0 7 1987
S   D

AIR FORCE SYSTEMS COMMAND
BROOKS AIR FORCE BASE, TEXAS 78235-5601

87

DISCLAIMER NOTICE

THIS DOCUMENT IS BEST QUALITY
PRACTICABLE. THE COPY FURNISHED
TO DTIC CONTAINED A SIGNIFICANT
NUMBER OF PAGES WHICH DO NOT
REPRODUCE LEGIBLY.

A185 294

REPORT DOCUMENTATION PAGE

Form Approved
OMB No 0704-0188

1a REPORT SECURITY CLASSIFICATION Unclassified	1b RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3 DISTRIBUTION / AVAILABILITY OF REPORT
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE	Approved for public release; distribution is unlimited.

4. PERFORMING ORGANIZATION REPORT NUMBER(S)	5 MONITORING ORGANIZATION REPORT NUMBER(S) AFHRL-TP-86-34

6a. NAME OF PERFORMING ORGANIZATION Universal Energy Systems, Inc.	6b OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION Training Systems Division

6c. ADDRESS (City, State, and ZIP Code) 8961 Tesoro Drive, Suite 600 San Antonio, Texas 78217	7b. ADDRESS (City, State, and ZIP Code) Air Force Human Resources Laboratory Brooks Air Force Base, Texas 78235-5601

8a. NAME OF FUNDING / SPONSORING ORGANIZATION Air Force Human Resources Laboratory	8b OFFICE SYMBOL (If applicable) HQ AFHRL	9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER F33615-83-C-0030

8c. ADDRESS (City, State, and ZIP Code) Brooks Air Force Base, Texas 78235-5601	10. SOURCE OF FUNDING NUMBERS			
	PROGRAM ELEMENT NO 62703F	PROJECT NO. 7734	TASK NO 08	WORK UNIT ACCESSION NO 24

11. TITLE (Include Security Classification)

Job Performance Measurement System Trainer's Manual

12. PERSONAL AUTHOR(S)
Bierstedt, S.A.; Hedge, J.W.

13a. TYPE OF REPORT Interim	13b. TIME COVERED FROM May 86 TO Dec 86	14. DATE OF REPORT (Year, Month, Day) September 1987	15. PAGE COUNT 158

16. SUPPLEMENTARY NOTATION

17.	COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	job performance measurement
05	09		rater training
05	10		

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

When assessing the job proficiency of individuals, it is essential that evaluators receive training to increase the accuracy of their ratings. A job performance measurement system trainer's manual was developed for use in training Walk-Through Performance Testing test administrators and raters (supervisors, peers, and job incumbents). This manual provides a step-by-step "how to" procedure for training performance appraisers. Although some of the materials are specific to jet engine mechanics (AFS 426X2), the manual is to be used as a prototype for application of the training program to future Air Force specialties.

20. DISTRIBUTION / AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS	21 ABSTRACT SECURITY CLASSIFICATION Unclassified
22a. NAME OF RESPONSIBLE INDIVIDUAL Nancy J. Allin, Chief, STINFO Office	22b. TELEPHONE (Include Area Code) (512) 536-3877	22c OFFICE SYMBOL AFHRL/TSR

DD Form 1473, JUN 86

Previous editions are obsolete.

JOB PERFORMANCE MEASUREMENT SYSTEM
TRAINER'S MANUAL

Sheryl A. Bierstedt

Universal Energy Systems, Inc.
8961 Tesoro Drive, Suite 600
San Antonio, Texas 78217

Jerry W. Hedge

TRAINING SYSTEMS DIVISION
Brooks Air Force Base, Texas 78235-5601

Accesion For	
NTIS CRA&I	V
DTIC TAB	[]
U:announced	[]
Justification	
By	
D.:	
Av	
Dist	
A-1	23

Reviewed and submitted for publication by

Rodger Ballentine, Lt Col, USAF
Chief, Skills Development Branch
Training Systems Division

This publication is primarily a working paper. It is published solely to document work performed.

SUMMARY

The Air Force Human Resources Laboratory is currently engaged in a high-resource job performance criterion development effort. Work sample tests and rating forms have been developed to measure the job proficiency of first-term jet engine mechanics. A vital component of this measurement process centers on the administrator's ability to accurately rate job incumbents. A necessary part of this research and development effort is the training of both work sample and rating form evaluators. Therefore, a training program was developed and administered to evaluators. The product of this work is a trainer's manual which provides the details for conducting a systematic program of test administrator training. The manual includes discussions of work-sample test administration procedures and requirements; hands-on, interview, and rater training guidelines; and long-term training recommendations.

PREFACE

Planning for the Air Force's program of research in performance assessment began several years ago as the result of three primary requirements. Operational military and civilian program managers in the Manpower, Personnel, and Training communities asked the Air Force Human Resources Laboratory (AFHRL) to develop a technology for measuring job performance so that the measures could be used to evaluate the effectiveness of training and selection programs and effects of other personnel programs and procedures. The Uniform Guidelines for Employee Selection of 1978, as supported by a review of case law, indicate the civilian procedures must be validated against job performance criteria to avoid litigation.

Second, the Manpower, Personnel, and Training research community needed the performance measures to serve as criteria in their many R&D projects. An AFHRL Research Advisory Panel recommended that the many R&D efforts to obtain specific performance criteria be consolidated into one combined effort. Thus, a job performance measurement technology composed of a wide range of candidate measures could be developed to serve these varied needs.

Plans for the Air Force performance measurement effort to meet these two requirements were under development when a third requirement for the measures came with a Congressional mandate that military selection tests be validated against job performance measures. These operational requirements, and legal and Congressional mandates provided the impetus to planning and obtaining support for this lengthy high-resource R&D effort.

The Air Force is involved in a long-term R&D effort to systematically obtain job performance measures. The short-term objective of this effort is the development of on-the-job performance measures to validate Air Force selection and classification procedures. Guidelines for developing and obtaining the performance measures will be established for a wide range of enlisted, officer, and civilian jobs. Once obtained, these measures will be placed in a data base for validation use. The long-term goal is to establish an operational performance measurement program for evaluation of selection and training procedures and personnel policies and practices. The goal here is to operationalize the procedures so that the performance measurement, validation, and evaluation can be carried out by technicians, as is currently done by the USAF Occupational Measurement Center with the Occupational Survey (Job Analysis) Program.

The Air Force R&D plan has not been developed in isolation from the other services. The Air Force is involved with the Army, Navy, and Marine Corps in coordinating the Congressionally mandated Joint-Service Job Performance Measurement Project to link enlistment standards to job performance. The Air Force's major focus in this effort is a new work sample testing technique called Walk-Through Performance Testing (WTPT). It combines testing of hands-on performance with interview testing to provide a high-fidelity measure of individual technical job competence. In addition, supervisory, peer, and self-rating forms have been developed at several levels of specificity. Finally, several questionnaires have also been developed to assess factors related to performance measurement (FRPM) such as job experience and motivation.

In order to collect the most accurate data from test administrators, supervisors, peers, and incumbents, structured training programs are required. The purpose of this trainer's manual is to provide the background and training materials necessary to accomplish the training function.

ii

TABLE OF CONTENTS

Table of Contents (Concluded)

JOB PERFORMANCE MEASUREMENT SYSTEM
TRAINER'S MANUAL

I. INTRODUCTION

The chief requirement of the Air Force criterion development project is to ensure that the most accurate job performance data are collected. This means that at every stage of the process from development through data collection, steps must be taken that increase the chances that accurate data will be obtained. A critical part of this strategy is the training of both test administrators and raters.

The purpose of this trainer's manual is to explicate the background, procedures, and techniques necessary to collect accurate data using the instruments in the Job Performance Measurement System (JPMS); i.e., Walk-Through Performance Testing (WTPT), rating forms, and Factors Related to Performance Measurement Questionnaires. To accomplish these objectives for the Jet Engine Mechanic Specialty (AFS 426X2) and to serve as a model for future Air Force specialties (AFSs), information is included on both preworkshop training activities and a formal training workshop held prior to data collection. Because the goal of training is to make test administrators and raters as reliable, valid, and accurate in their ratings as possible, each training component has been designed with that end in mind.

The first major section describes preworkshop training activities and recommendations for their use prior to the formal training workshop. A second component focuses on the training workshop itself, with major sections on WTPT administration, interview training, a behavior modeling exercise, hands-on training, and rater training. The next section includes sets of scripts and slides useful in training the test administrators and raters, as well as scripts and slides to be used by the test administrators to train raters in the field. An interview modeling exercise demonstrates proper conduct of an interview test item, thus providing an opportunity for test administrators to observe the modeling of appropriate interview behavior. One additional section discusses some variations and alternatives to the general training plan presented in this manual. It discusses issues such as (a) use of active-duty versus contractor-hired test administrators, (b) length of time allotted for training, (c) use of test proctors, and (d) shadow scoring/recalibration. The final section provides concluding remarks.

This training manual has been organized and assembled to provide the best training possible for test administrators and raters. In addition, it has been constructed in a way that should provide the trainer with a readily accessible, easy-to-follow set of materials. Whenever AFS-specific training materials are required, the manual utilizes jet engine mechanic information as examples for other specialties. It is hoped the training manual will provide a prototype for future specialties.

II. PREWORKSHOP ACTIVITIES

If the trainer is fortunate enough to be granted an extended period of time with the test administrators prior to a structured workshop, certain training activities should be undertaken that may prove invaluable to the success of the overall training effort. It should be noted that active-duty test administrators will not be available for extended periods prior to data collection. Therefore, the comments that follow are directed at contractor-hired test administrators.

Orientation Briefing

Initially, all WTPT administrators participate in an orientation briefing. This meeting occurs as soon as all administrators are hired, and lasts 2 or 3 hours. The purpose of the meeting is to familiarize the administrators with the project in general, and to introduce to the administrators key personnel involved in the endeavor. Most important, the orientation thoroughly outlines the responsibilities of the administrators and emphasizes the criticality of their roles in the research project. In addition, a calendar of events is distributed to all administrators indicating milestones to be reached in the months that follow. These milestones are discussed to ensure that the administrators understand what is expected of them and when. A suggested agenda is included in Appendix A.

Hands-On Training

Although the administrators are experts in the field in which they gather data, the accuracy of their observations is increased if they become technically proficient at performing each task included in WTPT. The technical proficiency is achieved over a period of several weeks. The administrators are taken to a base for observation of active-duty incumbents performing the tasks included in the WTPT. The objective of this training is twofold. First, the test administrators gain valuable practice observing correct and incorrect performance. In addition, the administrators can use WTPT booklets to record observations, thus becoming more familiar with using the booklets, and focusing on key steps in the WTPT tasks.

During this period, test administrators are given the opportunity to gain hands-on experience performing WTPT tasks. Also, by this time, the trainer should know whether equipment required to perform tasks in the WTPT is available for the formal training workshop. Given equipment availability, the trainer may choose to have each administrator perform certain WTPT tasks in the workshop for all other administrators to observe and score. This strategy provides a "live" hands-on training exercise that can prove quite valuable, especially if the "performing" test administrator is directed to make certain errors while doing the task.

If equipment is not available at the workshop, then an alternative to "live" hands-on training is required. Videotaping provides a very useful alternative. Either while in the field for this preworkshop hands-on training, or during the final stages of WTPT development, videotapes of active-duty subject-matter experts (SMEs) performing WTPT tasks can be made. Much planning is required to make the videotape endeavor worthwhile. Performance should be scripted, with SME input as to where logical (and/or subtle) errors can be made. Also, it is advisable to use experienced noncommissioned officers (NCOs) as actors to ensure precisely accurate or inaccurate performances. Finally, whether videotape or "live" hands-on performances are used, any time an incorrect performance is shown, it should be followed by a correct performance to reinforce the desired behaviors.

Videotaping can be quite a useful training tool because with careful scripting and performing, the trainer subsequently possesses knowledge of the target score (which steps were performed correctly/which were not) for each task, and can therefore judge whether the test administrators are scoring accurately or not. More will be discussed about the use of videotape technology for training in a later section.

A good deal of precoordination and planning is required to successfully implement the hands-on training process. The entire hands-on training process required substantial travel by the administrators involved in the Jet Engine Mechanic Specialty effort, since only one of the three engines under consideration was locally available. In addition, the videotaping component necessitated support by trained technicians.

2

Long-Term Training

Some of the most important training that takes place prior to the formal workshop is not a structured activity or exercise but rather, a continuing process. It involves substantial reading and studying of tests, the administrator's manual, relevant technical orders, rating forms, and rater training and background information on the research effort. This long-term training begins for the administrator immediately upon hiring and continues until data collection.

A significant part of the process includes role-play between administrators, with one playing the role of an incumbent and the other, the administrator. Although most of the hands-on tests in a technical field such as the Jet Engine Mechanic Specialty cannot be effectively role-played in an office environment, all administrators can certainly achieve proficiency on the interview tests. Role-play of interview tests ensures that the administrator can be understood by an incumbent and also allows the administrator to practice handling an array of verbal responses by an incumbent. Role-playing also provides practice in greeting an incumbent, beginning a day of testing, making transitions between tests, and closing a day of testing.

Another component of the ongoing training process involves the administrators' establishment of several testing schedules (for sequencing of tasks and examinees) to be used during data collection. While working on the schedules, the administrators become more familiar with each test, specifically the established time limits of each test, and the location of each test activity.

Finally, the administrators may be used to assist in the establishment of scoring procedures for the tests, especially in the area of weighting the test items. Again, this is another means of familiarizing the administrators with the tests.

III. TRAINING WORKSHOP

This workshop has been designed to cover the fundamental requirements for Walk-Through Performance Testing (WTPT) and rating form administration. Key elements in this process are emphasized through lecture, discussion, observation, practice, and/or feedback. The training workshop benefits both the administrators and the trainer. For the administrators, it is a culmination of all training received in previous weeks and provides a chance for them to assimilate the information and thus be able to apply it effectively. In those instances where training time is extremely limited (i.e., active-duty test administrators are used, and can be removed from their assigned duty station for only a limited period of time), the training workshop may be the only training test administrators receive. The workshop also permits the trainer to evaluate the capabilities of the administrators and identify any weaknesses in their skills.

The workshop should be scheduled no more than 2 or 3 weeks prior to the administration of the WTPT and rating forms. This time interval is short enough to allow training material to remain fresh in the minds of the administrators, but gives the trainer adequate time to provide extra attention to those administrators who need further training or practice in certain areas.

The workshop should be conducted in a quiet room, large enough to comfortably accommodate all administrators. The room should be equipped with tables or desks and an overhead projector. The Interview Training component of the workshop requires the use of a videocassette player. The Hands-On Training component requires several additional rooms (and if videotapes are used, a videocassette player in each room). Appendix B contains a checklist to facilitate preparation for the workshop.

3

The workshop is broken into several major sections. The first item to be addressed is the agenda to be followed during the workshop. Next, an overview briefing is presented to provide the administrators with extensive information about project background and current developmental efforts.

Following the overview briefing, logistical requirements associated with visits to the data collection bases should be discussed. One potential responsibility of the administrators upon arriving at each base is to deliver an in-briefing to the senior base representative for the specialty (e.g., for Jet Engine Mechanic, this would be the Deputy Commander for Maintenance (DCM)). If a test proctor is assigned to accompany the test administrator team, briefing responsibilities may be given to the proctor. Nevertheless, this briefing should be given to the administrators and then time allowed for them to practice briefing each other.

The bulk of the workshop concentrates on learning and mastering skills necessary to administer the WTPT effectively. This area is divided into three sections: a discussion of test administration requirements; discussion, modeling, and practice of good interviewing techniques; and practice using the hands-on tests of WTPT.

WTPT Training

For the Air Force, hands-on testing is a particular problem because of the complexity and expense involved in performing many tasks. For example, many critical tasks cannot be measured by hands-on testing because these tasks tend to take too long to complete, require replacement of expensive parts, and risk personal injury or damage to components. The AFHRL has devised a new methodology to deal with these problems. This new approach, Walk-Through Performance Testing (WTPT), has as its foundation the work-sample philosophy, but attempts to expand through the use of interview testing the measurement of critical tasks not measured by hands-on testing.

Interview testing requires the administrator to assess an incumbent's proficiency on a task by asking questions designed to uncover proficiency-based strengths and weaknesses related to the performance of that task. The interview testing is conducted at the worksite in a "show-and-tell" fashion so that the person being evaluated can visually and verbally describe how a step is to be accomplished (e.g., "that bolt is to be turned five revolutions," or "that component is to be lubricated prior to being assembled"). Thus, additional information, not otherwise collected, can be assembled, along with hands-on information, to provide a more thorough coverage of the content domain, and hopefully, a more accurate picture of an individual's job proficiency.

Because of this measurement orientation, the focus of WTPT training will be threefold. Initial discussions will center on procedural issues, such as how to administer and score WTPT work samples. Here, much of the discussion can focus on the Administrator's Manual developed by Alba and Wilcox (1985). A second component of training is interview skills development. Because of the interview component of the WTPT, test administrators will need to become familiar with conducting interviews and using effective probes. A third section will concentrate on scoring hands-on tasks. The administrators will observe videotapes of tasks being performed and rate each individual's performance in a test booklet.

Test Administration Requirements

To organize and coordinate test administration and data collection, standardized procedures need to be developed and subsequently explained in detail to test administrators. During this phase of the workshop, the administrators will be trained in the standardized testing procedures

4

outlined in the WTPT Administrator's Manual. Allow several hours to accomplish this. Copies of the manual are included in the administrators' packets of workshop materials. If the administrators have not been exposed to the manual previously, allow sufficient time for them to survey it briefly. Then, read through the manual with the group, section by section. It is critical that test administrators have a thorough knowledge and understanding of the testing procedures, to allow them to elaborate on critical areas or resolve any issues that might arise. Emphasize to the administrators that reliability of the test data they collect is dependent upon their adherence to the standardized testing procedures. The administrators must know and understand the information contained in the manual and be able to perform their duties competently and without hesitation. Instruct the administrators that it is necessary to spend considerable time outside of the workshop studying the manual in order to reach this level.

Interview Training

As noted earlier, interview testing is an important component of the WTPT process. This approach to performance measurement requires that administrators receive interview skills training. The interview situation is a face-to-face interaction between the administrator and incumbent; thus, the administrator must possess special skills that enable him/her to achieve the required pattern of interaction. What is demanded of the interviewer is the learning of a specialized way of behaving and interacting with another individual for the purpose of improving communication. This means acquiring additional insight into the interactions that make up the interview, as well as understanding more about the forces that motivate the respondent and influence the administrator's reaction to the examinee.

Because of the interview testing component of WTPT, an important part of this training must focus on strengthening administrator interviewing skills. This training will focus first on a lecture/discussion of proper interviewing techniques. It should then be followed by a behavior modeling exercise which includes (a) behavioral modeling, (b) rehearsal, and (c) feedback.

Modeling Exercise

Following the lecture/group discussion, proper conduct of an interview test item will be demonstrated via a behavior modeling exercise. The exercise requires two actors to role-play an interview test item and utilize appropriate communication and probing techniques throughout the interview. It is necessary for the two actors to rehearse the item until they can effectively demonstrate the desired interview techniques. The actors should also demonstrate appropriate methods of opening and closing the interview. This is not to be a participatory activity for administrators but rather, an opportunity for them to observe the modeling of appropriate interview behavior. A discussion follows the observation of the interview, in which the various techniques used by the actors are highlighted and discussed. Subsequent to the modeling exercise, the administrators will have a chance to practice proper interview procedures by role-playing interview test items with each other.

Section IV contains a script used for the behavior modeling exercise during the training workshop for administrators of the WTPT in the Jet Engine Mechanic Specialty. Interview item #134 was chosen for the exercise because it is lengthy enough to allow the demonstration of a variety of interview techniques. The interview, including opening and closing, was rehearsed extensively and then videotaped prior to the workshop. Videotaping allows for standardization of the behavior being modeled. This is important because the discussion component of the exercise is greatly facilitated by replaying the segments of the tape that illustrate the various techniques. In addition, the videotape can be replayed at a later date if a follow-up workshop

5

is necessary. It is strongly recommended that the videotape approach be used by trainers of administrators in other specialties.

Hands-On Training

In this third segment of WTPT training, test administrator teams are shown correct procedures for performing all WTPT hands-on tasks. The aim in these exercises is to calibrate the observation and rating processes of the administrators. The time required for this training component may vary due to the experience of the administrators. It is imperative that administrators are rating WTPT in the same way.

If videotapes are to be shown for WTPT hands-on tasks, administrators are required to rate an individual's performance on those tasks. A task is shown being performed either correctly or incorrectly. After each task is performed and evaluated in WTPT booklets, the group should reach consensus on their ratings of each step of the task, as well as their overall rating of the task. On those tasks that were shown being performed incorrectly, the correct procedures are shown following the group discussion.

If the WTPT development process has generated Phase II or Phase III tasks, the large group will need to separate into their evaluation teams. Separate rooms and videocassette players need to be reserved beforehand for this exercise.

Rater Training

Another major component of the workshop requires the administration of a Rater Training Session to the administrators. This duty may also be assigned to the test proctor. The training is identical to that which administrators may present at each base prior to administration of the rating forms.

Although the administrators may already be familiar with the content of the rater training, this is an opportunity for them to view a demonstration of the training, and to experience it from an incumbent's viewpoint. Rater training materials are included in Appendices C - F.

The workshop concludes with summary remarks and distribution of the administrative checklist which highlights responsibilities of administrators at each base. All training materials needed for this workshop are found in Section IV or in the appendices.

IV. TRAINING WORKSHOP SCRIPTS AND SLIDES

This section contains all scripts and slides necessary for conducting the training workshop. While most slides are generic and can be used for any AFS, it is necessary in some instances to address a specific career field. In these cases, AFS 426X2 is used as an example. Those slides requiring AFS-specific information are noted, as necessary, in the narrative preceding each set of slides.

The Workshop Introduction portion of this section consists of two slides and an accompanying script to be used by the trainer to open the workshop.

6

Workshop Introduction Script

SLIDE #1 - ADMINISTRATOR TRAINING WORKSHOP

HELLO, MY NAME IS _____. I'D LIKE TO WELCOME YOU TO THIS WORKSHOP. OUR GOAL WILL BE TO FAMILIARIZE YOU WITH ALL THE MATERIALS AND INFORMATION YOU WILL NEED TO ADMINISTER THE WALK-THROUGH PERFORMANCE TEST (WTPT), RATING FORMS, AND RELATED QUESTIONNAIRES. IN ADDITION, THE WORKSHOP HAS BEEN DESIGNED TO STRENGTHEN THE ACCURACY AND CONSISTENCY OF PERFORMANCE OBSERVATION IN THE WTPT, AS WELL AS PROCEDURAL CONSISTENCY ACROSS ADMINISTRATORS.

AT THIS POINT, I'D LIKE TO HAND OUT A PACKAGE OF MATERIALS THAT YOU WILL USE THROUGHOUT THE WORKSHOP. (Note to Trainer: see Appendix B for checklist of packet materials.)

SLIDE #2 - SCHEDULE

THE WORKSHOP IS DIVIDED INTO FIVE MAIN COMPONENTS:

1. BACKGROUND/OVERVIEW
2. LOGISTICAL REQUIREMENTS
3. BASE INTRODUCTORY BRIEFING
4. WTPT TRAINING
5. RATING FORM TRAINING

FIRST, I WILL PRESENT A FAIRLY DETAILED COVERAGE OF THE BACKGROUND, CURRENT DEVELOPMENTAL WORK, AND RELATED EFFORTS RELEVANT TO THIS PROJECT. I WANT TO PROVIDE YOU WITH SOME OF THE REASONS WHY THIS PROJECT HAS BEEN UNDERTAKEN BEFORE TURNING OUR FOCUS TO DATA COLLECTION ISSUES.

AFTER THIS OVERVIEW BRIEFING, LOGISTICAL REQUIREMENTS OF THE WORK WILL BE DISCUSSED. HERE WE WILL BE TALKING ABOUT SCHEDULING OF ACTIVITIES SUCH AS RATER TRAINING, ADMINISTRATION OF RATING FORMS, AND ENSURING CORRECT CONFIGURATION OF ENGINES. UPON YOUR ARRIVAL AT THE DATA COLLECTION SITE, ONE OF THE FIRST REQUIREMENTS WILL BE TO BRIEF KEY AIR FORCE PERSONNEL ON THE REASONS FOR YOUR PRESENCE, WHAT THE TESTING SCHEDULE IS EXPECTED TO BE, AND WHAT ASSISTANCE YOU WILL NEED FROM THEM. CONSEQUENTLY, WE HAVE PREPARED A SHORT PRESENTATION THAT CAN SERVE AS A MODEL FOR THIS BRIEFING. FOR THE JET ENGINE MECHANIC SPECIALTY, YOU CAN EXPECT THIS BRIEFING TO BE ATTENDED BY THE DEPUTY COMMANDER FOR MAINTENANCE (DCM) AND THE WING COMMANDER. I WILL PRESENT THIS BRIEFING TO YOU, AND THEN ALL OF YOU WILL BE GIVEN TIME TO PRACTICE THE BRIEFING.

FOLLOWING THE BASE INTRODUCTORY BRIEFING, WE WILL DISCUSS THE WTPT ADMINISTRATION REQUIREMENTS. THE WTPT ADMINISTRATOR'S MANUAL WILL BE THE PRIMARY GUIDE FOR THIS TRAINING.

NEXT WE WILL FOCUS ON THE INTERVIEW TESTING COMPONENT OF WTPT. WE WILL DISCUSS INTERVIEWING SKILLS, VIEW A VIDEOTAPE OF HOW TO CONDUCT A PROPER INTERVIEW, AND PRACTICE THESE SKILLS.

FOLLOWING YOUR INTERVIEW TRAINING, WE WILL FOCUS ON THE HANDS-ON TESTING COMPONENT OF WTPT. VIDEOTAPES OF JET ENGINE MECHANICS PERFORMING WTPT HANDS-ON TASKS WILL BE SHOWN, AND YOU WILL BE REQUIRED TO RATE THE INDIVIDUAL'S PERFORMANCE ON EACH TASK. RATINGS WILL THEN BE COMPARED AND DISCUSSED.

THE FINAL SESSION OF THE WORKSHOP WILL FOCUS ON RATER TRAINING AND RATING FORM ADMINISTRATION. I WILL PRESENT THE RATER TRAINING SESSION TO YOU JUST AS YOU WILL HAVE TO PRESENT IT TO THE SUPERVISORS, COWORKERS, AND INCUMBENTS.

SCHEDULE

- BACKGROUND/OVERVIEW

- LOGISTICAL REQUIREMENTS

- DCM BRIEFING

- WTPT TRAINING

  - TEST ADMINISTRATION REQUIREMENTS

  - INTERVIEW TESTING

  - HANDS-ON TESTING

- RATING FORM TRAINING

Overview Briefing Script

Prior to delivering this briefing to workshop attendants, the trainer should set the stage by explaining that the intent of the briefing is to convey very detailed information about the Air Force Job Performance Measurement Project. During data collection, the test administrators are field representatives of the project and can expect to be asked questions about the project by various base personnel. This briefing supplies most of the information needed to answer such questions.

SLIDE #1 - OVERVIEW

IN THIS BRIEFING, I'LL EXPLAIN THE OBJECTIVES OF OUR JOB PERFORMANCE MEASUREMENT WORK, THE REQUIREMENTS THAT ARE DRIVING THE WORK, OUR ASSOCIATION WITH A LARGER JOINT-SERVICE EFFORT, AND THE DETAILS OF THE AIR FORCE EFFORT.

SLIDE #2 - OBJECTIVES

WE ARE DEVELOPING A JOB PERFORMANCE MEASUREMENT TECHNOLOGY TO VALIDATE THE AIR FORCE'S SELECTION AND CLASSIFICATION PROCEDURES AND, MORE SPECIFICALLY, TO TEST THE FEASIBILITY OF USING THESE MEASURES TO SET ENLISTMENT STANDARDS. IN ADDITION, THIS INFORMATION CAN BE USED TO EVALUATE AIR FORCE MANPOWER, PERSONNEL, AND TRAINING SYSTEMS. FINALLY, WE HOPE TO USE THIS INFORMATION TO ACHIEVE COMPATIBLE INDIVIDUAL AND UNIT PERFORMANCE MEASUREMENT SYSTEMS.

SLIDE #3 - SELECTION SYSTEM VALIDATION CYCLE

IN THE PAST, THE AIR FORCE'S SELECTION/CLASSIFICATION SYSTEM HAS BEEN VALIDATED BY COMPARING AN INDIVIDUAL'S SCORES ON THEIR TESTS TAKEN PRIOR TO ENTERING THE SERVICE (I.E., THE ARMED SERVICES VOCATIONAL APTITUDE BATTERY - ASVAB) TO THEIR END-OF-TRAINING GRADE.

WHAT WE'RE ATTEMPTING TO DO IN THIS PROJECT IS TAKE THAT RATIONALE A STEP FURTHER BY SEEING HOW THEIR LEVEL OF PERFORMANCE ON THE JOB COMPARES WITH THEIR ENTRY-LEVEL TEST SCORES.

SLIDE #4 - RESEARCH REQUIREMENTS

THE AIR FORCE AND OTHER SERVICES ARE UNDER A CONGRESSIONAL MANDATE TO TEST THE FEASIBILITY OF LINKING ENLISTMENT STANDARDS TO JOB PERFORMANCE. IN ADDITION, THE AIR FORCE COMMUNITY (MILITARY PERSONNEL CENTER, AIR TRAINING COMMAND, AND AIR FORCE CIVILIAN PERSONNEL MANAGEMENT CENTER) REQUESTED THAT THE AFHRL DEVELOP PERFORMANCE MEASURES AS A MEANS OF EVALUATING SELECTION, CLASSIFICATION, AND TRAINING PROCEDURES, AS WELL AS SELECTION PROCEDURES USED TO HIRE AIR FORCE CIVILIAN EMPLOYEES.

SLIDE #5 - JOINT-SERVICE RESEARCH STRATEGY

THE AIR FORCE, ALONG WITH THE OTHER SERVICES, IS INVOLVED IN A COMPLEMENTARY EFFORT TO DEVELOP MEASURES OF JOB PERFORMANCE. CONSEQUENTLY, THERE IS BOTH OVERLAP AND UNIQUENESS IN THE SERVICES' RESEARCH PROGRAMS. FOR EXAMPLE, EACH SERVICE IS DEVELOPING WORK-SAMPLE TESTS. IN ADDITION, THE ARMY IS FOCUSING ON JOB KNOWLEDGE TESTS, WHEREAS THE NAVY IS DEVELOPING JOB SIMULATION METHODS.

THE AIR FORCE IS CONCENTRATING ON A COMBINED HANDS-ON AND INTERVIEW APPROACH KNOWN AS WALK-THROUGH PERFORMANCE TESTING (WTPT). IN ADDITION, A VARIETY OF DIFFERENT RATING FORMS ARE BEING DEVELOPED, AS ARE WORK EXPERIENCE MEASURES.

AS PART OF THIS JOINT-SERVICE EFFORT, WE ARE ALSO PLANNING TO SHARE THESE NEW TECHNOLOGIES TO SEE IF THE INSTRUMENTS HAVE CROSS-SERVICE APPLICABILITY. FOR EXAMPLE, THE WTPT BEING DEVELOPED FOR THE AIR FORCE JET ENGINE MECHANIC SPECIALTY WILL BE TRANSFERRED TO THE NAVY FOR USE WITH THEIR JET ENGINE MECHANIC RATING. IN ADDITION, EACH SERVICE IS THE LEAD FOR DIFFERENT SPECIALTIES.

SLIDE #6 - AIR FORCE LEAD SPECIALTIES

THE AIR FORCE'S JOINT-SERVICE COMMITMENT COVERS DEVELOPMENT AND TESTING OF MEASUREMENT METHODS IN EIGHT SPECIALTIES:

1. 426X2 - JET ENGINE MECHANIC
2. 492X1 - INFORMATION SYSTEMS RADIO OPERATOR
3. 272X0 - AIR TRAFFIC CONTROL OPERATOR
4. 328X0 - AVIONIC COMMUNICATIONS SPECIALIST
5. 423X5 - AEROSPACE GROUND EQUIPMENT SPECIALIST
6. 732X0 - PERSONNEL SPECIALIST
7. 122X0 - AIRCREW LIFE SUPPORT SPECIALIST
8. 324X0 - PRECISION MEASURING EQUIPMENT LABORATORY SPECIALIST

SLIDE #7 - AIR FORCE EFFORT

THIS JOINT-SERVICE COMMITMENT IS ONLY A PORTION OF A LARGER PERFORMANCE MEASUREMENT EFFORT BEING CONDUCTED BY AFHRL.

CURRENTLY, CANDIDATE MEASURES FOR AIR FORCE SPECIALTY (AFS) 426X2, JET ENGINE MECHANIC, ARE BEING FINALIZED. THE FOCUS ON A JOB PERFORMANCE MEASUREMENT SYSTEM (JPMS) COMPOSED OF WTPT AND RATING FORMS HAS CONTINUED FOR SEVEN MORE ENLISTED SPECIALTIES.

THESE DEVELOPMENTAL EFFORTS WILL THEN EXPAND INTO 32 ADDITIONAL ENLISTED SPECIALTIES, AS WELL AS 10 CIVILIAN AND 8 OFFICER SPECIALTIES.

ONCE THE DEVELOPMENT AND VALIDATION PROCESS HAS BEEN COMPLETED, THE MEASUREMENT AND VALIDATION TECHNOLOGIES WILL BE TRANSFERRED TO AIR FORCE USERS (ENLISTED AND OFFICER BY FY91; CIVILIAN BY FY92).

SLIDE #8 - JOB PERFORMANCE MEASUREMENT SYSTEM

LET ME EXPLAIN IN MORE DETAIL THE COMPONENTS OF THE JOB PERFORMANCE MEASUREMENT SYSTEM (AS DEVELOPED FOR THE JET ENGINE MECHANIC).

SLIDE #9 - PERFORMANCE MEASUREMENT SYSTEM

I'LL TALK ABOUT THE THREE MAJOR COMPONENTS OF THE SYSTEM -- WTPT, RATING FORMS, AND QUESTIONNAIRES TARGETED TO VARIOUS FACTORS RELATED TO PERFORMANCE MEASUREMENT -- AS WELL AS DESCRIBE OUR PLANS FOR IMPLEMENTATION OF THIS SYSTEM.

SLIDE #10 - WHAT IS A WALK-THROUGH PERFORMANCE TEST?

WALK-THROUGH PERFORMANCE TESTING CONSISTS OF TWO MAJOR COMPONENTS: (A) HANDS-ON ITEMS -- WHERE THE INCUMBENT IS REQUIRED TO PERFORM CERTAIN TASKS, AND (B) INTERVIEW ITEMS -- WHERE THE INCUMBENT IS REQUIRED TO "SHOW AND TELL" HOW TO PERFORM CERTAIN TASKS. IN ADDITION TO HAVING SOME UNIQUE HANDS-ON AND INTERVIEW ITEMS, WE HAVE DEVELOPED OVERLAP ITEMS (TASKS MEASURED BY BOTH A HANDS-ON ITEM AND AN INTERVIEW ITEM). IN THIS WAY, WE CAN TEST THE COMPARABILITY OF THESE TWO APPROACHES.

BY USING BOTH COMPONENTS, WE FEEL WE ARE TAKING ADVANTAGE OF THE "BEST OF BOTH WORLDS." WE BELIEVE THE HANDS-ON TESTING PROVIDES THE BEST MEASURE OF PERFORMANCE ON THE JOB, AND INTERVIEWING PERMITS ASSESSMENT OF THOSE TASKS UNABLE TO BE MEASURED BY HANDS-ON TESTING BECAUSE OF TIME CONSTRAINTS, SAFETY CONSIDERATIONS, OR POSSIBLE EQUIPMENT DAMAGE. IN THIS WAY, INTERVIEW ITEMS ALLOW US TO EXPAND THE TESTING DOMAIN.

SLIDE #11 - OVERVIEW OF WTPT DEVELOPMENT

NOW, BRIEFLY, LET ME GIVE YOU SOME ADDITIONAL BACKGROUND ON THE DEVELOPMENT OF THE WTPT METHODOLOGY. I'LL TOUCH ON HOW TASKS WERE SELECTED, AND HOW ITEMS WERE DEVELOPED AND FINALIZED.

SLIDE #12 - TASK SELECTION

FIRST, A TASK SELECTION PLAN WAS DEVELOPED THAT WOULD SELECT TASKS REPRESENTATIVE OF THE WORK PERFORMED IN ANY SPECIALTY BY FIRST-TERM AIRMEN. THIS PLAN WAS IMPLEMENTED IN THE JET ENGINE MECHANIC SPECIALTY, RESULTING IN THE IDENTIFICATION OF THREE ENGINE TYPES (J-57, J-79, TF-33) AND TWO FUNCTIONAL AREAS (SHOP AND FLIGHTLINE). TASKS WERE IDENTIFIED WITHIN THESE CATEGORIES WHICH SUBJECT-MATTER EXPERTS (SMES), ACTIVE-DUTY JET ENGINE MECHANICS, REVIEWED TO ENSURE THEY REPRESENTED THE WORK PERFORMED BY FIRST-TERM AIRMEN.

SLIDE #13 - ITEM DEVELOPMENT

ONCE TASKS WERE SELECTED, THE REAL DEVELOPMENT WORK BEGAN. TASK ANALYSTS VISITED NUMEROUS BASES AND INTERVIEWED SMES. ON THE BASIS OF THIS INFORMATION, ITEMS WERE WRITTEN FOR THESE TASKS. THESE BASE VISITS ALSO ALLOWED THE DEVELOPERS TO REVIEW EQUIPMENT NEEDS, WORK SITE REQUIREMENTS, AND THE ADEQUACY OF TECHNICAL ORDERS AND JOB GUIDES.

IN ADDITION TO THIS ON-SITE WORK, A WORKSHOP WAS HELD, WHERE SMES WERE ABLE TO ASSIST IN THE ITEM DEVELOPMENT PROCESS AND TO REVIEW PROGRESS TO DATE.

SLIDE #14 - ITEM FINALIZATION

AFTER ITEMS WERE DEVELOPED FOR ALL TASKS SELECTED, THEY WERE PILOT-TESTED FOR ACCURACY. IN ADDITION, INFORMATION WAS GATHERED CONCERNING EFFICIENT AND EFFECTIVE ADMINISTRATION PROCEDURES.

SECOND, A FINAL SET OF ITEMS WERE SELECTED FROM THE AVAILABLE POOL OF ITEMS. CRITERIA USED WERE (A) RATINGS OF ITEM QUALITY, (B) TASK DIFFICULTY, (C) LOGISTICAL REQUIREMENTS, AND (D) WHETHER ITEMS EXISTED FOR BOTH HANDS-ON AND INTERVIEW TESTING.

FINALLY, AN ITEM VALIDATION AND SCORING WORKSHOP WAS HELD AT AFHRL TO RECEIVE FINAL SME APPROVAL OF ITEMS AND DETERMINE STEP CRITICALITY AND IMPORTANCE WITHIN EACH ITEM.

SLIDE #15 (A - D) - HANDS-ON TASK 347

HERE IS AN EXAMPLE OF A HANDS-ON ITEM (NOTE TO TRAINER: POINT OUT THE INDIVIDUAL COMPONENTS).

SLIDE #16 (A - D) - INTERVIEW TASK 325

HERE IS AN EXAMPLE OF AN INTERVIEW ITEM (NOTE TO TRAINER: POINT OUT THE INDIVIDUAL COMPONENTS).

SLIDE #17 - RATING FORM DEVELOPMENT

NOW LET ME PROVIDE SOME DETAILS ASSOCIATED WITH RATING FORM DEVELOPMENT.

SLIDE #18 - BACKGROUND/APPROACH

THE PURPOSE OF RATING FORM DEVELOPMENT IS TO GENERATE AND EVALUATE ALTERNATIVES TO THE COSTLY WTPT.

FOR THIS REASON, FOUR DIFFERENT TYPES OF RATING FORMS (DIFFERING BY LEVEL OF SPECIFICITY) WERE DEVELOPED. THESE FOUR RATING FORMS ARE TO BE COMPLETED BY SUPERVISORS, INCUMBENTS, AND COWORKERS.

IT WAS ALSO DECIDED THAT ALL RATING FORMS SHOULD BE COMPARABLE IN TERMS OF NUMBER OF RATING LEVELS. THIS CONSISTENCY WOULD ENHANCE EASE OF USE ACROSS FORMS.

THE PROCEDURE FOR THE DEVELOPMENT OF THESE FORMS INVOLVED EXTENSIVE INTERVIEWS/WORKSHOPS WITH SMES. IT WAS BELIEVED SME INPUT WAS CRUCIAL TO THE ACCURATE DEVELOPMENT AND SUBSEQUENT ACCEPTANCE OF THESE FORMS BY THE USERS (I.E., JET ENGINE MECHANIC SUPERVISORS, COWORKERS, AND INCUMBENTS).

SLIDE #19 - RATING FORM DEVELOPMENT

AS NOTED, FOUR LEVELS OF RATING FORMS WERE DEVELOPED:

1. TASK: RATINGS MADE ON TASKS REPRESENTATIVE OF WORK PERFORMED BY FIRST-TERMERS IN THE SPECIALTY.

2. DIMENSIONAL: RATINGS MADE ON AREAS OF WORK (CLUSTERS OF TASKS) IMPORTANT TO THE JOB OF A FIRST-TERMER.

3. GLOBAL: OVERALL RATINGS OF AN INDIVIDUAL'S TECHNICAL PROFICIENCY AND INTERPERSONAL PROFICIENCY.

4. AIR FORCE-WIDE: RATINGS OF PERFORMANCE FACTORS IMPORTANT FOR ALL AIRMEN.

SLIDE #20A - TASK RATING FORM

THE TASK-LEVEL RATING FORM REPRESENTS THE MOST SPECIFIC, DETAILED FORM DEVELOPED. TASKS REPRESENTATIVE OF WORK PERFORMED BY FIRST-TERMERS WERE SELECTED, INCLUDING ALL TASKS MEASURED BY WTPT.

BECAUSE A RATER IS REQUIRED TO EVALUATE AN INCUMBENT ON EVERY TASK ON THIS RATING FORM (APPROXIMATELY 40 TASKS), THE DECISION WAS MADE TO LIMIT THE REQUIRED RATINGS TO A 5-POINT GRAPHIC RATING SCALE (NOTE TO TRAINER: SHOW SLIDE 20B, AND READ ALOUD THE FIVE ADJECTIVAL ANCHORS).

TO ENSURE THE ACCEPTABILITY AND ADEQUACY OF THIS APPROACH, THE PROPOSED RATING FORM WAS REVIEWED BY SEVEN SEPARATE GROUPS OF JET ENGINE MECHANICS.

SLIDE #21A - DIMENSIONAL RATING FORM

THE NEXT LEVEL OF DETAIL IS REPRESENTED BY THE DIMENSIONAL RATING FORM. HERE, RATERS ARE ASKED TO EVALUATE INCUMBENTS ON A NUMBER OF IMPORTANT AREAS OF WORK PERFORMANCE. AS NOTED PREVIOUSLY, BECAUSE OF THE DESIRE TO MAINTAIN CONSISTENCY ACROSS RATING FORMS, THE 5-POINT RATING SCALE WAS USED ONCE AGAIN, WITH THE SAME FIVE ADJECTIVAL ANCHORS. IN ADDITION, TO PROVIDE THE RATER WITH MORE INFORMATION, BEHAVIORAL SUMMARY STATEMENTS WERE INCLUDED. THIS ADDITIONAL DETAIL HELPS THE RATERS TO DEVELOP A COMMON "FRAME-OF-REFERENCE" AS TO WHAT "5" OR "3" ACTUALLY REPRESENTS (NOTE TO TRAINER: SHOW SLIDE 21B).

BECAUSE IT WAS BELIEVED THAT JET ENGINE MECHANIC SMES COULD GIVE THE MOST ACCURATE INFORMATION ABOUT WHAT INFORMATION BELONGS IN EACH OF THE FIVE LEVELS, A NUMBER OF WORKSHOPS WERE HELD TO GATHER THIS INFORMATION. AT EACH WORKSHOP, SMES "BUILT" AND REVIEWED THE FORM, GIVING SUGGESTIONS FOR WHAT AREAS WERE IMPORTANT, WHAT SPECIFIC DETAILS SHOULD BE INCLUDED, AND WHAT CHANGES NEEDED TO BE MADE.

THE FINAL RATING FORM CONSISTED OF THESE DIMENSIONS:

1. COMPLETION OF FORMS
2. REMOVE/REPLACE ENGINE COMPONENTS
3. TROUBLESHOOT (A FLIGHTLINE DIMENSION ONLY)
4. SHOP MAINTENANCE/FLIGHTLINE MAINTENANCE
5. INSPECT ENGINE
6. PREPARATION FOR STORAGE AND SHIPMENT (A SHOP DIMENSION ONLY)
7. QUALITY CONTROL

SLIDE #22A - GLOBAL RATING FORM

THE DEVELOPMENT RATIONALE FOR THE GLOBAL RATING FORM WAS IDENTICAL TO THAT USED FOR THE DIMENSIONAL RATING FORM. WITHIN GENERAL GUIDELINES, THE FORM WAS CONSTRUCTED AND REVISED BY SMES, AND PILOT-TESTED USING SMES. AS NOTED PREVIOUSLY, THE FORM CONSISTS OF TWO COMPONENTS, TECHNICAL AND INTERPERSONAL PROFICIENCY (NOTE TO TRAINER: SHOW SLIDES 22B & C).

SLIDE #23A - AIR FORCE-WIDE RATING FORM

ONCE AGAIN, SIMILAR DEVELOPMENTAL ACTIVITIES OCCURRED WITH THIS RATING FORM. THE CONCERN WITH THE AIR FORCE-WIDE RATING FORM WAS TO IDENTIFY ENLISTEE PERFORMANCE FACTORS IMPORTANT ACROSS ALL AIR FORCE CAREER FIELDS. IN ORDER TO IDENTIFY THESE FACTORS, TWO HALF-DAY WORKSHOPS WERE HELD AT THE MILITARY PERSONNEL CENTER. FUNCTIONAL MANAGERS FROM A WIDE VARIETY OF CAREER FIELDS WERE ASKED TO ATTEND AND SERVE AS SMES. THE FINAL RATING FORM CONSISTED OF EIGHT PERFORMANCE FACTORS:

1. TECHNICAL KNOWLEDGE/SKILL
2. INITIATIVE/EFFORT
3. KNOWLEDGE OF AND ADHERENCE TO REGULATIONS/ORDERS
4. INTEGRITY
5. LEADERSHIP
6. MILITARY APPEARANCE/PHYSICAL CONDITION
7. SELF-DEVELOPMENT
8. SELF-CONTROL

THIS FORM WAS DEVELOPED UTILIZING A FORMAT SIMILAR TO THE DIMENSIONAL AND GLOBAL FORMS (NOTE TO TRAINER: SHOW SLIDE 23B).

SLIDE #24 - COVARIABLE ASSESSMENT

NOW, LET ME BRIEFLY MENTION ADDITIONAL INFORMATION, BESIDES WTPT AND RATING FORMS, THAT WILL BE COLLECTED IN THIS EFFORT.

SLIDE #25 - OBJECTIVE OF COVARIABLE ANALYSIS

THE INTENT IN FOCUSING ON COVARIABLE ANALYSIS IS TO IDENTIFY FACTORS RELATED TO (I.E., THINGS THAT CAN INFLUENCE) JOB PERFORMANCE OR ITS MEASUREMENT.

SLIDE #26 - FACTORS RELATED TO PERFORMANCE

FOR EXAMPLE, AN INDIVIDUAL'S APTITUDE LEVEL, AMOUNT OF TRAINING OR JOB EXPERIENCE, MOTIVATION, OR FACTORS IN THE ENVIRONMENT BEYOND ONE'S CONTROL CAN AFFECT HOW WELL THE JOB IS DONE.

SLIDE #27 - FACTORS RELATED TO PERFORMANCE MEASUREMENT

IN ADDITION, HOW ACCURATE THE MEASUREMENT DEVICES ARE OR ARE PERCEIVED TO BE BY THE USERS MAY AFFECT THE DATA COLLECTED. ALSO, WHETHER THESE INSTRUMENTS ALLOW DISCRIMINATION BETWEEN GOOD AND POOR PERFORMERS AND WHETHER THE INSTRUCTIONS ARE CLEAR AND UNDERSTANDABLE CAN AFFECT THE ABILITY TO MEASURE PERFORMANCE ACCURATELY.

SLIDE #28A - SOURCES OF INFORMATION

    THIS INFORMATION WILL BE COLLECTED BY TWO GENERAL METHODS. FIRST, EXISTING COMPUTER FILES
WILL BE REVIEWED AND PERTINENT INFORMATION EXTRACTED. IN ADDITION, QUESTIONNAIRES HAVE BEEN
DEVELOPED TO ASSESS FACTORS NOT AVAILABLE IN FILE DATA, AS INDICATED ON THE SLIDES I WILL SHOW
YOU NEXT.

(NOTE TO TRAINER: SHOW THESE QUESTIONNAIRES TO THE GROUP)

SLIDES #28B-C - TASK EXPERIENCE

SLIDES #28D-E - GENERAL BACKGROUND, MOTIVATION/COMMITMENT, SITUATIONAL CONSTRAINTS

SLIDES #28F-H - RATING FORM QUESTIONNAIRE

SLIDES #28I-K - WTPT QUESTIONNAIRE

SLIDES #29 - DATA COLLECTION PLANS

    NOW, LET ME GIVE YOU A BRIEF GLIMPSE OF OUR PLANS FOR DATA COLLECTION.

SLIDE #30 - DATA COLLECTION

    FOR THE FULL-SCALE DATA COLLECTION EFFORT, THREE TO FOUR MONTHS WILL BE REQUIRED, WITH VISITS
TO THREE OR FOUR BASES PER ENGINE. EACH BASE VISIT WILL LAST APPROXIMATELY THREE WEEKS. ONE
HUNDRED TO ONE HUNDRED TWENTY AIRMEN PER ENGINE (WHICH MEANS 25-40 PER BASE) WILL BE TESTED. THE
AIM IS TO TEST AT LEAST TWO AIRMEN PER DAY.

SLIDE #31 - TEST SCHEDULE

    OUR ANTICIPATED SCHEDULE WILL CLOSELY RESEMBLE THAT DESCRIBED FOR THE PRETEST. THREE DAYS
ARE ALLOWED FOR SCHEDULING AND ACCOMPLISHMENT OF THE BASE INTRODUCTORY BRIEFING, EQUIPMENT SETUP,
RATER TRAINING, AND RATING FORM ADMINISTRATION. THE TEAM LEADER IS RESPONSIBLE FOR BOTH THE
RATER TRAINING AND THE BRIEFING. IN ADDITION, ALL WTPT ADMINISTRATION WILL BE ACCOMPLISHED WITH
ONE ADMINISTRATOR PER INCUMBENT.

SLIDE #32 - DATA COLLECTION BASES

    AT THIS TIME WE'RE PROJECTING DATA COLLECTION AT THE BASES LISTED ON THIS SLIDE.

Overview Briefing Slides

Slides 29-32 are AFS specific. The trainer should tailor these slides as necessary to accommodate the AFS under consideration.

JOB PERFORMANCE MEASUREMENT
R&D

TRAINING SYSTEMS DIVISION
AIR FORCE HUMAN RESOURCES LABORATORY
BROOKS AIR FORCE BASE, TEXAS

OBJECTIVES

o DEVELOP PERFORMANCE MEASUREMENT TECHNOLOGY TO

   o VALIDATE SELECTION AND CLASSIFICATION PROCEDURES

     - FEASIBILITY OF USING PERFORMANCE TO SET ENLISTMENT STANDARDS

   o EVALUATE MPT SYSTEMS

   o INTEGRATE INDIVIDUAL AND UNIT PERFORMANCE MEASUREMENT SYSTEMS

SELECTION SYSTEM VALIDATION CYCLE

ON-THE-JOB

JOB PERFORMANCE MEASURES

TECHNICAL TRAINING

VALIDATION

INITIAL SELECTION AND CLASSIFICATION

ASVAB MINIMUM REVISION

ASVAB APTITUDE INDEX MINIMUM
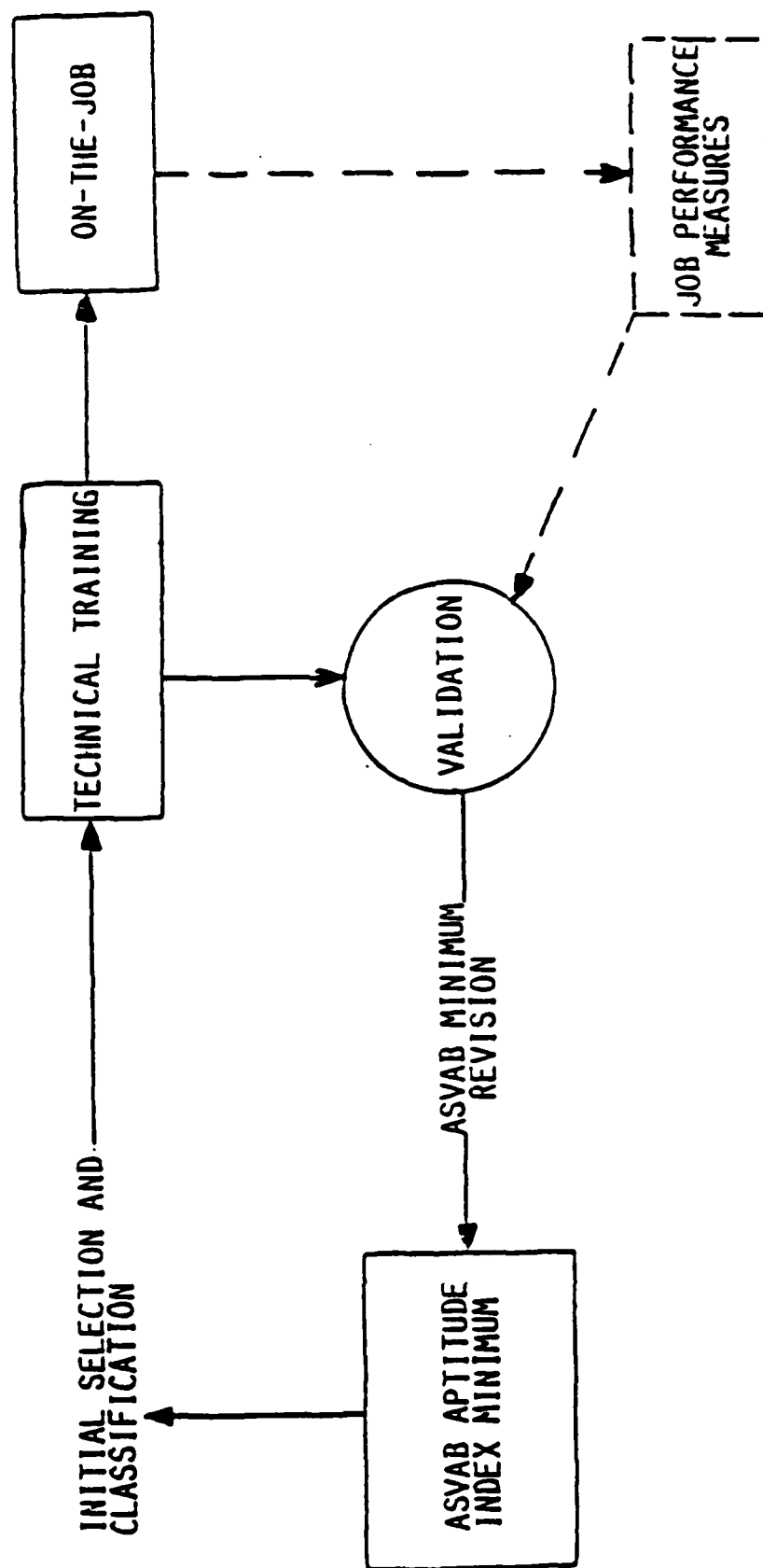
RESEARCH REQUIREMENTS

o AIR FORCE MPT

   o RPR 81-06, VALIDATION OF EMPLOYEE
      SELECTION PROCEDURES

     - AIR FORCE CIVILIAN PERSONNEL
       MANAGEMENT CENTER (AFCPMC)

   o RPR 83-02, IMPROVED PERFORMANCE
      MEASUREMENT & PREDICTION

     - AFMPC/MPCMCP
     - ATC/TTXR

   o CONGRESSIONAL MANDATE TO LINK
      ENLISTMENT STANDARDS TO JOB
      PERFORMANCE

     o JOINT-SERVICE JOB PERFORMANCE
       MEASUREMENT PROJECT

       - OVERSIGHT BY OASD/MI&L, MAP AND
         NAS

JOINT-SERVICE RESEARCH STRATEGY

o   COMPLEMENTARY SERVICE RESEARCH
    PROGRAMS

    o   ARMY: JOB KNOWLEDGE TESTS AND
                ARMY-WIDE MEASURES

    o   NAVY: JOB SIMULATION

    o   AIR FORCE: INTERVIEW TESTING,
                     RATING FORMS, AND
                     EXPERIENCE MEASURES

o   HANDS-ON MEASURES - BENCHMARK FOR
    SURROGATES

o   DEMONSTRATE UTILITY OF TECHNOLOGY FOR
    OTHER SERVICES

o   EACH SERVICE LEAD FOR SPECIFIC
    SPECIALTIES

AIR FORCE LEAD SPECIALTIES

426X2 – JET ENGINE MECHANIC

492X1 – INFORMATION SYSTEMS RADIO OPERATOR

272X0 – AIR TRAFFIC CONTROL OPERATOR

328X0 – AVIONIC COMMUNICATIONS SPECIALIST

423X5 – AEROSPACE GROUND EQUIPMENT SPECIALIST

732X0 – PERSONNEL SPECIALIST

122X0 – AIRCREW LIFE SUPPORT SPECIALIST

324X0 – PRECISION MEASURING EQUIPMENT SPECIALIST

AIR FORCE EFFORT

JOB PEFORMANCE MEASUREMENT SYSTEM
JET ENGINE MECHANIC
(AFS 426X2)

PERFORMANCE MEASUREMENT SYSTEM

o COMPONENT DEVELOPMENT

   o WALK-THROUGH PERFORMANCE TEST

   o RATING FORMS

   o FACTORS RELATED TO PERFORMANCE
      MEASUREMENT QUESTIONNAIRES

o IMPLEMENTATION

WHAT IS A WALK-THROUGH PERFORMANCE TEST?

o COMPONENTS

    o HANDS-ON ITEMS

    o INTERVIEW ("SHOW & TELL") ITEMS

    o OVERLAP ITEMS

o ADVANTAGES - BEST OF BOTH WORLDS

    o FIDELITY OF HANDS-ON TESTING

    o EXPANSION OF TESTING DOMAIN

OVERVIEW OF WTPT DEVELOPMENT

o TASK SELECTION

o ITEM DEVELOPMENT

o ITEM FINALIZATION

TASK SELECTION

o TASK SELECTION PLAN DEVELOPMENT

   o SELECT TASKS REPRESENTATIVE OF
      THE WORK PERFORMED

o TASK SELECTION PLAN IMPLEMENTATION

o TASK SELECTION REVIEW WORKSHOP

ITEM DEVELOPMENT

o TASK ANALYSIS/ITEM WRITING

    o BASE VISITS/SME INTERVIEWS

    o WORK SITE AND EQUIPMENT REVIEW

    o TECHNICAL ORDERS/JOB GUIDE REVIEW

o PHASE I ITEM REVISION WORKSHOP

    o SME PARTICIPATION

31

ITEM FINALIZATION

o PILOT TEST

    o ALL ITEMS

    o ADMINISTRATION PROCEDURES

o FINAL ITEM SELECTION

    o RATINGS OF ITEM QUALITY

    o TASK DIFFICULTY

    o LOGISTICAL REQUIREMENTS

    o HANDS-ON/INTERVIEW OVERLAP

o ITEM VALIDATION AND SCORING WORKSHOP

Objective: To evaluate the incumbent's ability to install
             starters.

Estimated Time: 25 M Start: Finish: Time Req:
                                                             C0347HT
Time Limit: 25M #Times Performed: Last Performed:
                                  C0347HN   C0347HL
Tools and Equipment: Consolidated Tool Kit, 0-150 inch-pound
           Torque Wrench, 10-300 inch-pound Torque Wrench,
           Lubricant.
                              Appropriate T.O.:
           J-79 (Fighter):   1F-4E-10
           J-57 (Tanker):   1C-135(K)A-2-4JG-6
           TF-33 (P7) (Cargo):   1C-141A-2-4JG-5 or
                                 1C-141B-10
           General Torquing   2-1-111 or 1-1A-8 or
                                 specific engine torquing T.O.:
                                 J-79: 2J-J79-86-7WP00100
                                 J-57: 1C-135(K)A-2-4JG-1
                                 TF-33: 1C-141B-10

Background Information: There are some common steps for all
           three engines but each engine has some unique
           steps. The evaluation will be made on the common
           steps except when indicated. Differences include:
           1. J-57 has two cannon plugs.
               J-79 and TF-33 (P7) have one cannon plug.
           2. J-57 and TF-33 have one nut on the V-clamp.
               J-79 has two nuts on the V-clamp
           Two-person task when actually putting the starter
           in place. This is the only task that the incumbent
           will be required to actually get the technical
           order from the shelf.

Engine Configuration: The starter adapter pad must be on the
           engine. The starter is off the engine.

Instructions:

Administer in the shop.
The incumbent MUST use the T.O.
Compare the incumbent's response to the correct answer for the
appropriate engine.

SAY TO THE INCUMBENT

GET THE T.O. USED TO INSTALL A STARTER AND THE T.O. FOR GENERAL
TORQUING PROCEDURES, THEN INSTALL THE STARTER USING THE
APPROPRIATE PROCEDURES FROM BOTH T.O.s. FOLLOW GENERAL
MAINTENANCE PROCEDURES AT ALL TIMES. TELL ME IF YOU PLAN TO
DEVIATE FROM THE T.O. YOU MAY NOT ASK ANYONE TO HELP YOU FIND
THE CORRECT T.O.

                  Performed or Answered Correctly   Yes   No

Did the incumbent:

1. Obtain the appropriate T.O. for the
    starter installation and the torquing
    procedures within 10 minutes?   ___ ___C0347H01

2. Hang the clamp per the specific T.O.?   ___ ___C0347H02

3. Lubricate the spline?   ___ ___C0347H03

4. Ensure that the starter was not left
    in an unsupported position (hung by
    the shaft) at any time?   ___ ___C0347H04

5. Index (position) the starter per the
    appropriate T.O.?   ___ ___C0347H05
    J-79:   Breach at 8 o'clock position
    J-57:   Breach at 3 o'clock position
    TF-33: Drain plug at 6 o'clock position

6. Properly seat the V-Band Clamp?   ___ ___C0347H06

7. Torque the V-Band Clamp per the
    appropriate T.O.?   ___ ___C0347H07
    J-79 Airesearch: 110 to 130 inch-pounds
    J-79 Sunstrand: 65 inch pounds
    J-57:   65 to 70 inch-pounds
    TF-33:   60 to 70 inch-pounds

8. Install the locking device on the V-Band
    Clamp per the appropriate T.O.?   ___ ___C0347H08

9. Connect the applicable electrical connector
    (cannon plug)? (Must not connect the
    tachometer generator plug on the J-57)   ___ ___C0347H09

10. Use the correct tools and materials?   __   __C0347H10

STOP TIME: _____

                    NOTE: TURN PAGE FOR RATING SCALE

Phase I J-79, J-57, TF-33   Hands-On Task 347 P
   Shop and Flightline

                         OVERALL PERFORMANCE

5   Far exceeded the acceptable level of proficiency

4   Somewhat exceeded the acceptable level of proficiency

3   Met the acceptable level of proficiency

2 - Somewhat below the acceptable level of proficiency

1   Far below the acceptable level of proficiency
C0347HP

Objective: To evaluate the incumbent's knowledge concerning
            the determination of high oil consumption on
            J-57 engines.

Estimated Time: 20M Start:_____ Finish:_____ Time Req:_____

                                                    D0325IT
Time Limit 25M #Times Performed:_____ Last Performed_____

                          D0325IN   D0325IL
Tools and Equipment: None. T.O. 1C-135(K)A-2-4MS-3,
            page 11-31.

Background Information: The isolation of high oil consumption
            can take from one hour to several days.

Engine Configuration: N/A

Instructions:

Administer in the shop.
The incumbent may use the T.O. except when indicating the oil
flow path.

                    SAY TO THE INCUMBENT

I AM GOING TO ASK YOU SOME QUESTIONS ABOUT J-57 ENGINE OIL
CONSUMPTION. YOU MAY USE T.O. 1C-135(K)A-2-4MS-3 AS A GUIDE
WHEN ANSWERING ALL THE QUESTIONS EXCEPT THE FIRST QUESTION
WHICH DEALS WITH THE OIL FLOW PATH.

                    Performed or Answered Correctly   Yes   No

SHOW THE INCUMBENT THE OIL FLOW CHART

1.   Beginning and ending at the oil tank,
     tell me the path that the oil flows through
     the following components: Oil tank,
     Oil Bypass valve, Oil filter, Scavenge
     pumps, Oil Jets for Bearing cavities and
     sumps, Oil pressure relief valve,
     Oil cooler, Oil pump.
     ANSWER: Incumbents order 1-9   ___   ___D0325I01
   a. Oil Tank   ___
   b. Oil Pump   ___
   c. Oil Pressure Relief Valve   ___
   d. Oil Filter   ___
   e. Oil Jets for Bearing
      cavities and sumps   ___
   f. Scavenge Pumps   ___
   g. Oil Bypass Valve   ___
   h. Oil Cooler   ___
   i. Oil Tank   ___

                          37

Phase III J-57   Interview Task 325
   Flightline

                    Performed or Answered Correctly   Yes   No

2. After checking the oil level, what area
    would you normally check next to determine
    the source of high oil consumption?
    ANSWER:
    The engine cowling.   ___ ___D0325I02

3. Why is the engine cowling normally one
    of the first areas to be inspected when
    determining the source of high oil
    consumption?
    ANSWER:
    Oil in the cowling would indicate a leak.   ___ ___D0325I03

4. Name four areas or components other than
    the oil cooler that you would check for
    oil leaks.
    (The incumbent must answer 4 for credit).   ___ ___D0325I04
    ANSWER: Yes   No
 a. Oil tank   ___   ___
 b. Angle drive   ___   ___
 c. Oil pump accessory housing   ___   ___
 d. Pressure lines   ___   ___
 e. Scavenge lines   ___   ___
 f. Engine inlet   ___   ___
 g. Engine exhaust   ___   ___
 h. Combustion case split line   ___   ___
 i. Pressurizing and Dump (P&D) valve   ___   ___

5. What is the purpose of performing
    a breather isolation check?
    ANSWER:
    To determine the location of the
    internal oil leak.   ___ ___D0325I05

6. What could possibly be wrong if after
    performing a leak check, breather
    check, and oil consumption run there
    was no visible sign of oil consumption?
    ANSWER:
    Improper Servicing   ___ ___D0325I06

                              38

Performed or Answered Correctly   Yes   No

7. Other than checking the servicing level,
   yourself, or asking the crew chief, what
   other source is available for determining
   when the oil system was last serviced?
   ANSWER:
   Read Aircraft Forms such as 781   ___   ___D0325I07

8. What scale is read when reading the
   Breather Gauge?
   ANSWER:
   Inches in Mercury   ___   ___D0325I08

9. What reading would indicate a restriction
   in the scavenge system?
   ANSWER:
   A normal oil breather pressure reading
   and a high oil scavenge pressure reading.   ___   ___D0325I09

10. What two basic pieces of information would
    you need to determine whether or not you
    had an excessive oil consumption condition?
    (The incumbent must mention both for credit)   ___   ___D0325I10
    ANSWER: Yes   No
 a. The number of flying hours   ___   ___
 b. The number of quarts of oil serviced ___   ___

STOP TIME: _____

NOTE: TURN PAGE FOR RATING SCALE

39

Phase III J-57   Interview Task 325 P
   Flightline

OVERALL PERFORMANCE

5   Far exceeded the acceptable level of proficiency

4   Somewhat exceeded the acceptable level of proficiency

3   Met the acceptable level of proficiency

2   Somewhat below the acceptable level of proficiency

1   Far below the acceptable level of proficiency
D0325IP

RATING FORM DEVELOPMENT
JET ENGINE MECHANIC
(AFS 426X2)

BACKGROUND/APPROACH

o PURPOSE:

o RATIONALE:

    o 4 RATING FORMS

    o 3 SOURCES

o INITIAL DECISIONS

o PROCEDURE

RATING FORM DEVELOPMENT

o TASK

o DIMENSIONAL

o GLOBAL

o AIR FORCE-WIDE

43

TASK RATING FORM

O CORRESPONDENCE TO WTPT

O INITIAL DECISIONS

O SME REVIEW

Example of Task Rating Form

5	--	Always exceeds acceptable level of proficiency
4	--	Frequently exceeds acceptable level of proficiency
3	--	Meets acceptable level of proficiency
2	--	Occasionally meets acceptable level of proficiency
1	--	Never meets acceptable level of proficiency

_____ Completes AFTO Forms 349 (Maintenance Data Collection Record), AFTO Forms 350 (Reparable Item Processing Tag), and AFTO Forms 781A (Maintenance Discrepancy and Work Document).

_____ Inspects engine plumbing.

_____ Installs starters.

_____ Installs lockwire.

_____ Inspects 3000-series trailers for serviceability.

_____ Inspects area for foreign object damage (FOD) matter.

_____ Inspects first stage compressors.

_____ Places protective covers on engines.

_____ Services engine starters.

_____ Transports engines to work sections.

_____ Installs tachometer generators.

_____ Inspects engine or accessory splines.

_____ Installs J-79 engine afterburner secondary flaps.

_____ Installs J-79 engine constant speed drives (CSD).

_____ Installs J-79 engine forward top anti-icing ducts.

_____ Installs J-79 engine exhaust gas temperature thermocouple harness.

_____ Installs J-79 engine ignition exciter boxes.

DIMENSIONAL RATING FORM

o INITIAL DECISIONS

o SME REVIEW

o FINAL RATING FORM

   o COMPLETION OF FORMS

   o REMOVE/REPLACE ENGINE COMPONENTS

   o TROUBLESHOOT (FLIGHTLINE)

   o SHOP MAINTENANCE/FLIGHTLINE
     MAINTENANCE

   o INSPECT ENGINE

   o PREPARATION FOR STORAGE AND
     SHIPMENT (SHOP)

   o QUALITY CONTROL

Example of Dimensional Rating Form

Dimension 2: Remove/Replace Engine Components

This refers to the entire procedure of removing/replacing any engine component. _Example_: Removing/replacing complex system components such as fuel control or CSD; removing/replacing simple system components such as tachometer generator.

Levels	Circle the Number	Behavioral Examples
Always exceeds acceptable level of proficiency	5	Removes/replaces complex system components without supervision; is able to complete all remove/replace tasks in less than the required time; demonstrates an exceptional understanding and knowledge of tech orders (TOs).
Frequently exceeds acceptable level of proficiency	4	Removes/replaces complex system components with minimal supervision; completes all remove/replace tasks within required time; requires minimal supervision in use of TO only on certain tasks.
Meets acceptable level of proficiency	3	Removes/replaces complex system components with some supervision; removes/replaces simple system components without supervision; usually completes tasks within required time; locates appropriate TO and usually uses it without supervision.
Occasionally meets acceptable level of proficiency	2	Removes/replaces simple system components with some supervision; requires substantial supervision when removing/replacing complex system components; usually takes longer than required time to complete tasks; able to locate appropriate TO but must have supervision in interpretation and use.
Never meets acceptable level of proficiency	1	Fails to remove/replace simple system components even with constant supervision; often unable to determine appropriate TO for task; unable to interpret TO without direct supervision.

GLOBAL RATING FORM

o DEVELOPMENT RATIONALE

o PILOT TESTS

o FINAL ITEMS

   o TECHNICAL PROFICIENCY

   o INTERPERSONAL PROFICIENCY

48

Global Rating Form

TECHNICAL PROFICIENCY

Level	Circle the Number	Behavioral Examples
Always exceeds acceptable level of proficiency	5	Completes all sections of required tasks without supervision and with few minor errors; is able to remove or replace minor/major components with no supervision and with few or no errors; always brings the correct materials to worksite.
Frequently exceeds acceptable level of proficiency	4	Completes all sections of required tasks with little or no supervision and few errors; is able to remove or replace minor/major components with little or no supervision and with few errors; frequently brings correct materials to worksite.
Meets acceptable level of proficiency	3	Completes all sections of tasks with minimal supervision and an acceptable number of errors; is able to remove or replace minor components with minimal supervision and an acceptable number of errors; usually brings correct materials to worksite.
Occasionally meets acceptable level of proficiency	2	Requires direct supervision or assistance on certain tasks in order to avoid numerous errors; is able to remove or replace minor components with some supervision or assistance; occasionally brings correct materials to worksite.
Never meets acceptable level of proficiency	1	Is unable to complete tasks without direct supervision; is unable to remove or replace minor components without direct supervision or assistance; and never brings correct materials to worksite.

Global Rating Form

INTERPERSONAL PROFICIENCY

Levels	Circle the Number	Behavioral Examples
Always exceeds acceptable level of proficiency	5	Always works well with all levels of supervision and coworkers; works effectively on tasks requiring teamwork or cooperation; willing to assist coworkers in completing a high priority task without being asked by supervisor.
Frequently exceeds acceptable level of proficiency	4	Frequently works well with all levels of supervision and coworkers; works effectively on tasks requiring teamwork or cooperation; often willing to assist coworkers in completing a high priority task without being asked by supervisior.
Meets acceptable level of proficiency	3	Cooperates with most supervisors and coworkers; usually works effectively on tasks requiring teamwork or cooperation; will assist coworkers in completing a high priority task only if asked by supervisor.
Occasionally meets acceptable level of proficiency	2	Cooperates with only a select group of supervisors and coworkers; rarely works effectively on tasks requiring teamwork or cooperation; reluctantly assists coworkers in completing a high priority task if asked by supervisor.
Never meets acceptable level of proficiency	1	Is uncooperative and ineffective when working on a task requiring teamwork or cooperation; unreceptive to guidance by supervisors or coworkers; doesn't care about functioning well as a unit or crew.

AIR FORCE-WIDE RATING FORM

o INITIAL DECISIONS

o MPC WORKSHOP

o FINAL RATING FORM

   o TECHNICAL KNOWLEDGE/SKILL

   o INITIATIVE/EFFORT

   o KNOWLEDGE OF AND ADHERENCE TO
     REGULATIONS/ORDERS

   o INTEGRITY

   o LEADERSHIP

   o MILITARY APPEARANCE/PHYSICAL
     CONDITION

   o SELF-DEVELOPMENT

   o SELF-CONTROL

51

Example of Air Force-Wide Rating Form

Performance Factor 2:   Initiative/Effort

Showing initiative and extra effort on job/mission/assignment.

Levels	Circle the Number	Behavioral Examples
Always exceeds acceptable level of performance	5	Always volunteers when opportunities arise; demonstrates initiative promptly and effectively; enthusiastically works extra hours to ensure completion of project; works to completion when situation becomes difficult.
Frequently exceeds acceptable level of performance	4	Frequently volunteers and demonstrates initiative when opportunities arise; usually performs with enthusiasm despite difficulty; willing to work extra hours to complete assignment.
Meets acceptable level of performance	3	Volunteers for some assignments; willing to put in extra effort and time on priority tasks; does not give up easily when faced with obstacles or difficulty.
Occasionally meets acceptable level of performance	2	Seldom volunteers or displays initiative; may avoid difficult assignments; has a tendency to stop working when tired or bored; will work extra hours only when required.
Never meets acceptable level of performance	1	Displays no initiative and never volunteers for assignments; reluctant to work extra hours; may become hostile when asked to put forth extra effort; performs ineffectively due to lack of effort; gives up easily when faced with a difficult task.

COVARIABLE ASSESSMENT
JET ENGINE MECHANIC
(AFS 426X2)

OBJECTIVE OF COVARIABLE ANALYSIS

o IDENTIFY FACTORS RELATED TO:

   o JOB PERFORMANCE

   o MEASUREMENT OF JOB PERFORMANCE

FACTORS RELATED TO PERFORMANCE

o APTITUDE

    o ASVAB

    o AFQT

o TRAINING

    o FORMAL EDUCATION

    o TECHNICAL SCHOOL

    o SKILL-LEVEL UPGRADE TRAINING

o EXPERIENCE

    o TIME IN AFS

    o TASK-LEVEL EXPERIENCE ON PRESENT
       ENGINE

    o EXPERIENCE ON OTHER ENGINES

o SITUATIONAL CONSTRAINTS

o MOTIVATION/COMMITMENT

FACTORS RELATED TO PERFORMANCE MEASUREMENT

o ACCURACY OF WTPT, RATING FORMS

o ACCEPTABILITY OF WTPT, RATING FORMS

o DISCRIMINATION PROVIDED BY WTPT, RATING FORMS

o COMPREHENSIVENESS/UNDERSTANDABILITY OF INSTRUCTIONS

SOURCES OF INFORMATION

o EXISTING COMPUTER FILES

    o APTITUDE SCORES

    o DEMOGRAPHICS

    o EDUCATION/EXPERIENCE

o QUESTIONNAIRES

    o TASK LEVEL EXPERIENCE

    o GENERAL BACKGROUND

    o MOTIVATION/COMMITMENT

    o SITUATIONAL CONSTRAINTS

    o ACCEPTABILITY/DISCRIMINABILITY/
      ACCURACY

57

Example of Task Experience Questionnaire	1. No or almost none
Read each task statement and think about the amount of relevant on-the-job experience you've had on that task, excluding technical school training. Using the scale provided, write the number corresponding to your response in the space beside the task.	2. A small amount 3. A moderate amount 4. A great amount 5. A very great amount

#	Task	
1.	Completes AFTO Forms 349 (Maintenance Data Collection Record) AFTO Forms 350 (Reparable Item Processing Tag), or AFTO Forms 781A (Maintenance Discrepancy and Work Document)	
2.	Inspects engine plumbing	
3.	Installs starters	
4.	Installs lockwire	
5.	Inspects 3000-series trailers for serviceability	
6.	Inspects area for foreign object damage (FOD) matter	
7.	Inspects first stage compressors	
8.	Places protective covers on engines	
9.	Services engine starters	
10.	Transports engines to work sections	
11.	Installs tachometer generators	
12.	Inspects engine or accessory splines	
13.	Installs J-57 engine pressure ratio probes	
14.	Installs J-57 engine anti-icing valves	
15.	Installs J-57 engine exhaust gas temperature thermocouple harness	
16.	Installs J-57 engine ignition exciter boxes	
17.	Transfers J-57 engines from 4100 trailers to 3000-series trailers	
18.	Installs J-57 starter control valves	
19.	Isolates J-57 engine-to-aircraft throttle rigging system malfunctions when throttle is out of alignment	
20.	Isolates J-57 engine fuel system malfunctions when the engine fails to obtain combustion	
21.	Determines source of high oil consumption in J-57 engines	
22.	Isolates J-57 engine starter system malfunctions when the engine fails to rotate	
23.	Installs J-57 engine bleed air system governors	
24.	Attaches a sling and hoist to J-57 engines on a B52G aircraft	

Read each task statement and think about the amount of relevant on-the-job experience you've had on that task, excluding technical school training. Using the scale provided, write the number corresponding to your response in the space beside the task.	1. No or almost none 2. A small amount 3. A moderate amount 4. A great amount 5. A very great amount
25. Inspects J-57 engine aircraft throttle controls for freedom of movement	
26. Positions 4100 stands for J-57 engine removals or installations	
27. Adjusts operating J-57 engines using a screwdriver	
28. Drains J-57 fuel filters	
29. Inspects J-57 engines before operation	
30. Connects JET CAL test equipment to J-57 engines	
31. Services J-57 engine oil system	
32. Removes J-57 Constant Speed Drive (CSD) oil coolers	

GENERAL BACKGROUND

NAME _____ SSAN _____-____-_____
        Last   First   MI

The following questions pertain to your work experience, your work unit, and your feelings about your job. This information will be used for research purposes only. Please check/fill in each blank as accurately as possible.

1. Present Skill Level: _____ 3 Level
                        _____ 5 Level
                        _____ 7 Level

2. Months in present unit: ____ ____

3. Engine currently assigned to: _____ J-79
                                 _____ J-57
                                 _____ TF-33

4. Months you have been a Jet Engine Mechanic on your present engine system (i.e., J-79, J-57, TF-33): ____ ____

5. Area where most of your work is done: _____ Shop
                                         _____ Flightline

6. Months in shop ____ ____; months on flightline ____ ____

7. Please list any additional Jet Engine Mechanic experience below.

Engine Type   Amount of Experience (months)

_____   _____
_____   _____
_____   _____

8. In general, how is morale in your unit? (Check One)   _____ Extremely Low
                                                         _____ Fairly Low
                                                         _____ Average
                                                         _____ Fairly High
                                                         _____ Extremely High

For the following questions, use the scale provided below to respond to each statement.

    1 - Strongly Disagree
    2 - Disagree
    3 - Neither Agree nor Disagree
    4 - Agree
    5 - Strongly Agree

9.____   The technical manuals and other written materials that I use in my job are clear and understandable.

10.____   The technical manuals and other written materials that I use in my job are available when I need them.

60

11. ____ The tools and equipment that I use in my job are available when I need them.

12. ____ I am able to use my skills and talents in my job.

13. ____ I get a sense of accomplishment from my job.

14. ____ I feel that my supervisor is concerned about my well-being.

15. ____ I feel that my supervisor gives me the support that I need to do my job.

16. ____ I feel that my job is interesting.

17. ____ I get a sense of pride from being in the Air Force.

18. ____ I feel that my job is important to the overall mission of the Air Force.

19. ____ I am satisfied with my job.

20. ____ I feel a strong sense of responsibility to my unit.

21. ____ I perform my duties to the best of my abilities.

22. ____ My technical school training provided me with the basic skills and knowledges needed to do my job.

23. ____ My skill level upgrade training provides me with the additional skills and knowledges needed to do my job.

Additional Comments (If referring to a specific question, please give question number)

_____
_____
_____
_____

RATING FORM QUESTIONNAIRE

In the following questions we are interested in your beliefs about the usefulness of the rating forms you just completed. Please respond to each statement using the scale provided below.

Not at All	To a small Extent	To a moderate Extent	To a great Extent	To a very Great extent
/————————/————————/————————/————————/
1	2	3	4	5

1. ____ How motivated were you to complete the rating forms?

2. ____ Did you find the performance rating process interesting?

3. ____ Did you care how accurate your ratings were?

4. ____ Did you feel it was important to make accurate ratings?

5. ____ Did you make an "extra effort" to carefully pay attention to all of the instructions and examples in order to make accurate ratings?

6. ____ Are you satisfied that you made the most accurate ratings you could?

7. ____ Based on your experience in this project, how important is it to you to make any performance ratings you do as accurate as you can?

8. ____ Do you believe that the true purpose of the ratings was the one explained to you during the rater orientation?

9. ____ Do you feel other persons involved really tried to follow the rules in completing their ratings?

10. ____ Do you feel other persons involved really cared about making accurate ratings?

11. ____ Do you believe that the ratings collected will be used for research purposes only?

12. ____ Do you think other persons involved gave higher ratings than persons deserved?

13. ____ Will your supervisor have access to any information about you collected from the rating forms?

14. ____ Do you feel other persons were comfortable giving low ratings to themselves or others?

Do the rating forms evaluate your job proficiency fairly?

15.____ Task Rating Form

16.____ Dimension Rating Form

17.____ Global Rating Form

18.____ Air Force-Wide Rating Form

Are the rating forms easy to use and understandable as a means of determining job proficiency?

19.____ Task Rating Form

20.____ Dimension Rating Form

21.____ Global Rating Form

22.____ Air Force-Wide Rating Form

Would you be able to tell the difference between good and poor performers by looking at the ratings they were given?

23.____ Task Rating Form

24.____ Dimension Rating Form

25.____ Global Rating Form

26.____ Air Force-Wide Rating Form

If someone were to look at the ratings on the form, would they be able to get a true picture of the performance level of the person being rated?

27.____ Task Rating Form

28.____ Dimension Rating Form

29.____ Global Rating Form

30.____ Air Force-Wide Rating Form

Overall, are the rating forms acceptable to you as a way to determine job proficiency?

31.____ Task Rating Form

32.____ Dimension Rating Form

33.____ Global Rating Form

34.____ Air Force-Wide Rating Form

Overall, did you feel confident about the ratings you made?

35.____ Task Rating Form

36.____ Dimension Rating Form

37.____ Global Rating Form

38.____ Air Force-Wide Rating Form

In the following questions, we are interested in your beliefs about the rating forms in comparison to one another. For each question, please rank-order the four rating forms using a "1" for the best, a "2" for next best, and so on. For example, if you feel that the Air Force-wide rating form provides the most accurate ratings of a person's performance you would place a "1" in the space beside "Air Force-wide Rating Form." Similarly, if you feel that the Task Rating Form is next to the worst at providing accurate ratings, you would place a "3" in the space next to "Task Rating Form."

Please be sure to rank each type rating form for each question. Also use each ranking number (1,2,3,4) only once for each question.

Are they easy to use and understandable?

39.____ Task Rating Form

40.____ Dimension Rating Form

41.____ Global Rating Form

42.____ Air Force-Wide Rating Form

Can you tell the difference between good and poor performers?

43.____ Task Rating Form

44.____ Dimension Rating Form

45.____ Global Rating Form

46.____ Air Force-Wide Rating Form

Can you get a true picture of someone's performance level?

47.____ Task Rating Form

48.____ Dimension Rating Form

49.____ Global Rating Form

50.____ Air Force-Wide Rating Form

NAME _____   SSAN ____ - __ - _____
     Last   First   MI

For the following statements we are interested in your beliefs about the
hands-on/interview testing.   Please respond to each statement using the scale
provided below.

Not at All	To a small Extent	To a moderate Extent	To a great Extent	To a very Great extent
/_____	/_____	/_____	/_____	/
1	2	3	4	5

1. _____ Did you feel it was important to perform well on the test?

2. _____ Are you satisfied that you performed as well as you could on the
test?

3. _____ Does the test provide a true picture of your performance level?

4. _____ Did you care how well you performed on the test?

5. _____ Did you find the test interesting?

6. _____ Did you make an "extra effort" to carefully pay attention to all
of the instructions and examples in order to perform well?

7. _____ How motivated were you to perform to the best of your ability on
the test?

8. _____ Do you believe that the true purpose of the test was the one
explained to you by the test administrator?

9. _____ Do you trust that the information collected from you in this
test will be used for research purposes only?

10. _____ Will your supervisor have access to any information collected
about you from this test?

Is the test acceptable to you as a way to determine job proficiency?

11. _____ Hands-on test

12. _____ Interview test

Did the test evaluate your job proficiency fairly?

13. _____ Hands-on test

14. _____ Interview test

Will the results of this test be useful to the Air Force?

15. _____ Hands-on test

16. _____ Interview test

Is the test easy to use and understandable as a means of determining job proficiency?

17. _____ Hands-on test

18. _____ Interview test

Could someone tell the difference between good and poor performers by looking at the results of the test?

19. _____ Hands-on test

20. _____ Interview test

If someone were to look at the results of the test, could they get a true picture of the performance level of the person who took the test?

21. _____ Hands-on test

22. _____ Interview test

How well did the instructions you received at the beginning of each section prepare you to accomplish that section?

23. _____ Hands-on test

24. _____ Interview test

What improvements would you make in the instructions?

_____

_____

_____

_____

25. _____ How well was the importance of this Performance Measurement program to the Air Force expressed in the orientiation you received?

26. _____ Will the information collected for this performance measurement program be used for actual performance reports or other administrative purposes?

Think back on all of the rating forms and hands-on/interview tasks you have completed during this project. Please rank the following on their ability to provide accurate and useful information about an individual's performance. (1 = Best, 2 = Next Best, 3 = worst).

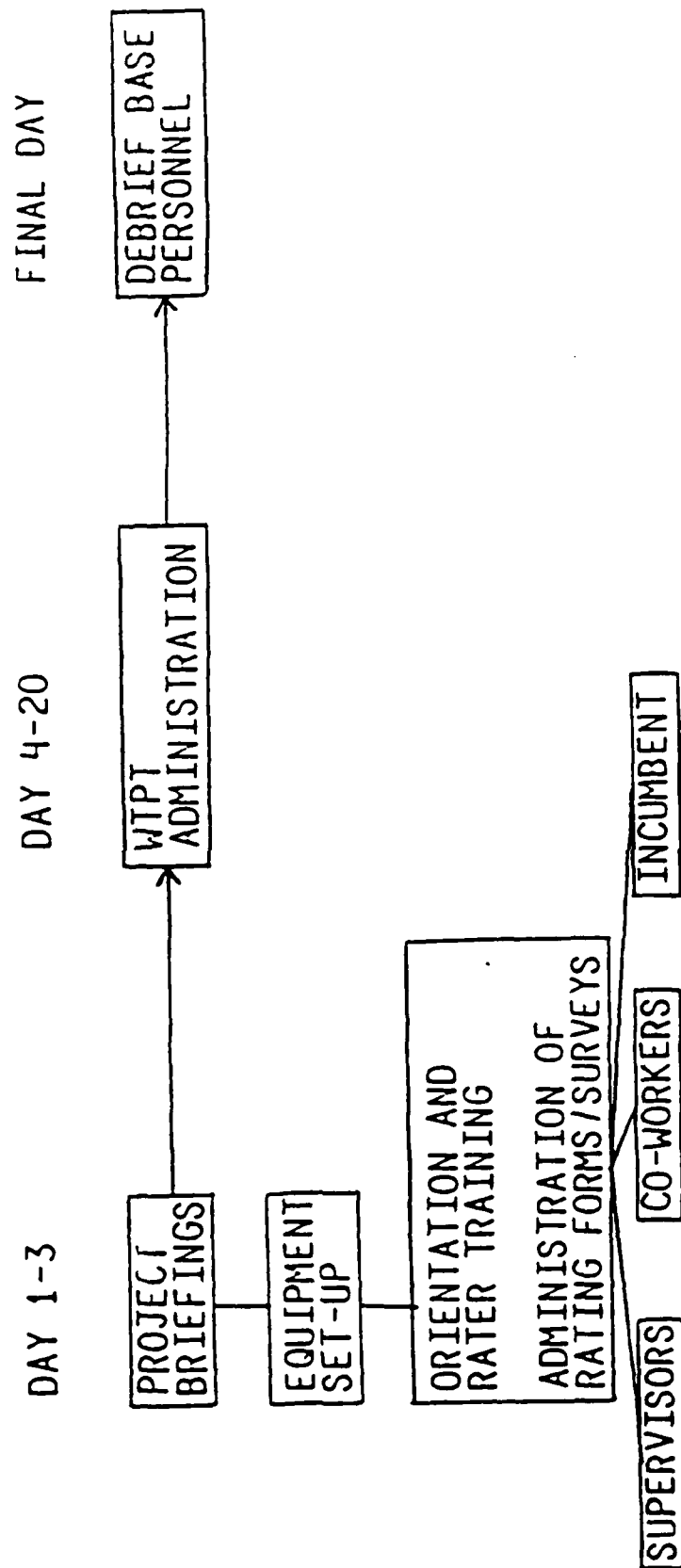27. Rating Forms_____   28.Hands-on tests_____   29. Interviews_____

Additional Remarks/Comments:

_____
_____
_____
_____
_____

DATA COLLECTION PLANS
JET ENGINE MECHANIC
(AFS 426X2)

DATA COLLECTION

o 3 TEAMS OF 3 TEST ADMINISTRATORS (EACH TO AN ENGINE)

o 3 TO 4 MONTHS

o 3 TO 4 BASES PER ENGINE

o 3 WEEKS/BASE

o TEST INCLUDES WTPT, RATING FORMS, SURVEYS

o TEST A MINIMUM OF TWO AIRMEN PER DAY

o TEST 100 TO 120 AIRMEN PER ENGINE

o 25 TO 40 PER BASE

USAF AFS 426X2 JET ENGINE MECHANIC DATA COLLECTION TEST SCHEDULE

DAY 1-3   DAY 4-20   FINAL DAY

PROJECT BRIEFINGS

EQUIPMENT SET-UP

ORIENTATION AND RATER TRAINING

ADMINISTRATION OF RATING FORMS/SURVEYS

SUPERVISORS

CO-WORKERS

INCUMBENT

WTPT ADMINISTRATION

DEBRIEF BASE PERSONNEL

DATA COLLECTION BASES

o   J-79

    o   GEORGE

    o   SEYMOUR JOHNSON

    o   BERGSTROM OR MOODY

o   TF-33

    o   NORTON

    o   MCGUIRE

    o   CHARLESTON OR MCCHORD

o   J-57

    o   CASTLE

    o   LORING

    o   PLATTSBURGH

    o   BARKSDALE

Base Introductory Briefing Script

Prior to delivering this briefing, the trainer should point out to workshop attendants that copies of the slides and script for the briefing are provided in their workshop packets. While only one person per data collection team is typically responsible for delivering this briefing, circumstances may at some time require that another team member conduct the briefing. For this reason, it is imperative that all team members be prepared. Following the briefing, the trainer should set aside some blocks of time to allow the test administrators to study and then practice the briefing. The trainer should monitor this practice at all times.

Slides #1, 5, 6, 7, 8, and 9 contain information specific to AFS 426X2. The narrative for these slides, as well as the slides themselves, should be tailored by the trainer to the AFS under consideration.

SLIDE #1 - JOB PERFORMANCE MEASUREMENT PROJECT

GOOD MORNING/AFTERNOON. MY NAME IS _____.
THESE ARE MY FELLOW TEAM MEMBERS _____ AND _____.
WE REPRESENT THE AIR FORCE HUMAN RESOURCES LABORATORY AT BROOKS AFB, TX. WE ARE HERE AS PART OF THE AIR FORCE'S JOB PERFORMANCE MEASUREMENT PROJECT. I'D LIKE TO TAKE A FEW MINUTES TO GIVE YOU SOME DETAIL ON THE PROJECT AND TO TELL YOU WHAT WE WILL BE DOING DURING OUR VISIT AND HOW YOU WILL BE INVOLVED.

SLIDE #2 - OVERVIEW

FIRST, I'D LIKE TO DISCUSS SOME REASONS WHY THE AIR FORCE IS CONDUCTING THIS PROJECT. THE WORK THE AIR FORCE HAS DONE OVER THE LAST YEAR IN YOUR SPECIALTY INVOLVES THE DEVELOPMENT OF VARIOUS WAYS TO MEASURE AN INDIVIDUAL'S ABILITY TO PERFORM HIS/HER JOB. I WILL THEN DISCUSS OUR PLANS TO COLLECT JOB PERFORMANCE INFORMATION WHILE WE ARE HERE, AND THE PAYOFFS OF THIS WORK FOR THE AIR FORCE.

SLIDE #3 - BACKGROUND

WHY IS THE AIR FORCE DOING THIS WORK? THERE ARE SEVERAL MAIN REASONS. FIRST, CONGRESS HAS ASKED THE SERVICES TO REEXAMINE THE WAY PEOPLE ARE SELECTED AND ASSIGNED TO SPECIALTIES. SECOND, AIR FORCE PERSONNEL AND TRAINING MANAGERS REQUESTED PERFORMANCE MEASURES TO ENHANCE THE PREDICTION OF JOB SUCCESS. THE AIR FORCE IS INTERESTED IN ANSWERING THESE QUESTIONS, AS WELL AS IN USING JOB PERFORMANCE INFORMATION TO KNOW WHO TO TRAIN AND WHAT TYPE OF TRAINING TO GIVE.

SLIDE #4 - OBJECTIVES

THEREFORE, THE PRIMARY OBJECTIVES OF OUR EFFORTS ARE TO DEVELOP A PERFORMANCE MEASUREMENT TECHNOLOGY (A) TO EVALUATE TRAINING PROGRAMS, AND (B) TO ASSIST IN EVALUATING THE SETTING OF ENLISTMENT STANDARDS.

SLIDE #5 - JOB PERFORMANCE MEASUREMENT SYSTEM

THE JOB PERFORMANCE MEASUREMENT SYSTEM THAT HAS BEEN DEVELOPED FOR YOUR SPECIALTY CONSISTS OF THREE MAIN COMPONENTS:

1. WALK-THROUGH PERFORMANCE TESTING (WTPT)
2. RATING FORMS
3. FACTORS RELATED TO PERFORMANCE MEASUREMENT QUESTIONNAIRES

WALK-THROUGH PERFORMANCE TESTING CONSISTS OF TWO MAJOR COMPONENTS: (A) HANDS-ON TESTING AND (B) INTERVIEW TESTING. HANDS-ON TESTING REQUIRES INCUMBENTS TO PERFORM TASKS THEY ACTUALLY DO ON THE JOB. INTERVIEW TESTING REQUIRES INCUMBENTS TO EXPLAIN THE STEPS INVOLVED IN PERFORMING THE TASKS THEY ACTUALLY DO ON THE JOB.

FOUR DIFFERENT TYPES OF RATING FORMS WERE DEVELOPED. THESE RATING FORMS WILL BE COMPLETED BY SUPERVISORS, COWORKERS, AND INCUMBENTS. THESE RATING FORMS ARE:

1. TASK RATING FORM
2. DIMENSIONAL RATING FORM
3. GLOBAL RATING FORM
4. AIR FORCE-WIDE RATING FORM

THROUGH QUESTIONNAIRES ADMINISTERED AT THE SAME TIME AS THE RATING FORMS, WE WILL ALSO BE COLLECTING INFORMATION ABOUT AN INCUMBENT'S EXPERIENCE ON EQUIPMENT AND SPECIFIC TASKS, PRIOR TRAINING HE/SHE HAS RECEIVED, AND LEVEL OF MOTIVATION.

SLIDE #6 - DATA COLLECTION

WE ARE CURRENTLY IN THE MIDST OF FULL-SCALE DATA COLLECTION. FOR THE NEXT 3 TO 4 MONTHS, WE WILL BE COLLECTING DATA FROM FIRST-TERMERS IN THE 426X2 SPECIALTY. WE WILL VISIT 3-4 BASES PER ENGINE TYPE (J-57, J-79, AND TF-33), FOR A TOTAL OF 9-12 BASES. WE WILL USE THREE TEAMS OF THREE TEST ADMINISTRATORS EACH (ONE TEAM PER ENGINE TYPE). EACH TEAM WILL SPEND APPROXIMATELY 3 WEEKS AT EACH BASE AND WILL EVALUATE AT LEAST TWO AIRMEN PER DAY. WE HOPE TO COLLECT DATA FROM A TOTAL OF 100-120 AIRMEN PER ENGINE, USING WALK-THROUGH PERFORMANCE TESTING, RATING FORMS, AND QUESTIONNAIRES. THIS MEANS WE WILL BE TESTING 25-40 AIRMEN PER BASE WHO HAVE BEEN ON THE JOB APPROXIMATELY 6 MONTHS AND HAVE UP TO 48 MONTHS OF SERVICE TIME.

SLIDE #7 - DATA COLLECTION TEST SCHEDULE

THIS IS WHAT OUR TESTING SCHEDULE LOOKS LIKE FOR YOUR BASE AND OTHERS INVOLVED IN THE DATA COLLECTION EFFORT. (NOTE TO TRAINER: TALK THROUGH THIS SCHEDULE, STEP BY STEP.)

SLIDE #8 - TEST ADMINISTRATOR QUALIFICATIONS

THE TEST ADMINISTRATORS WHO WILL BE COLLECTING DATA AT YOUR BASE ARE ALL FORMER JET ENGINE MECHANICS, WITH A TOTAL OF 52 YEARS OF MECHANIC EXPERIENCE AMONG THE THREE OF THEM. THEIR RECENT TRAINING HAS INCLUDED A REVIEW OF THE TESTING INSTRUMENTS DURING DEVELOPMENT, PRACTICE USING THE INSTRUMENTS, AND AN INTENSIVE TRAINING WORKSHOP.

SLIDE #9 - LOGISTICAL REQUIREMENTS

   SGT _____, OUR POINT OF CONTACT HERE AT YOUR BASE, HAS ARRANGED FOR US TO HAVE
TWO ENGINES DEDICATED TO US DURING OUR STAY HERE AND HAS PROVIDED ROOM IN THE SHOP FOR TEST
ADMINISTRATION. HE HAS ALSO GRANTED US ACCESS TO NECESSARY TECHNICAL ORDERS, TOOLS, AND OTHER
EQUIPMENT AND HAS ARRANGED FOR ROOMS FOR RATING FORM ADMINISTRATION. (NOTE TO TRAINER: NOW IS
THE TIME FOR THE TEST ADMINISTRATORS TO COMPLIMENT THE POC ON THE WORK HE HAS DONE FOR YOU, IF
INDEED A COMPLIMENT IS IN ORDER.)

SLIDE #10 - AIR FORCE PAYOFFS

   WHAT WILL THIS WORK ACCOMPLISH? IT WILL:

   1. IMPROVE THE MEASUREMENT OF PERFORMANCE
   2. IMPROVE THE AIR FORCE'S SYSTEM OF SELECTING, CLASSIFYING, AND TRAINING
       INDIVIDUALS
   3. INCREASE MISSION READINESS

Base Introductory Briefing Slides

Slides #1, 5, 6, 7, 8, and 9 are AFS-specific. The trainer should tailor these slides as necessary to accommodate the AFS under consideration.

JOB PERFORMANCE MEASUREMENT PROJECT
JET ENGINE MECHANIC
(AFS 426X2)

OVERVIEW

o BACKGROUND

o TEST DEVELOPMENT

o DATA COLLECTION PLANS

o SUMMARY

BACKGROUND

o CONGRESSIONAL MANDATE TO LINK
  ENLISTMENT STANDARDS TO JOB
  PERFORMANCE

o REQUESTS FOR RESEARCH FROM AIR FORCE
  COMMUNITY

  o AIR TRAINING COMMAND (ATC)

  o MILITARY PERSONNEL CENTER (MPC)

  o AIR FORCE CIVILIAN PERSONNEL
    MANAGEMENT CENTER (AFCPMC)

OBJECTIVES

o DEVELOP PERFORMANCE MEASUREMENT TECHNOLOGY TO

   o EVALUATE TRAINING SYSTEMS

   o ASSIST IN SETTING ENLISTMENT STANDARDS

JOB PERFORMANCE MEASUREMENT SYSTEM
JET ENGINE MECHANIC (AFS 426X2)

o WALK-THROUGH PERFORMANCE TESTING (WTPT)

o RATING FORMS

o FACTORS RELATED TO PERFORMANCE MEASUREMENT QUESTIONNAIRES

DATA COLLECTION

o 3 TEAMS OF 3 TEST ADMINISTRATORS
   (EACH TO AN ENGINE)

o 3- TO 4-MONTHS
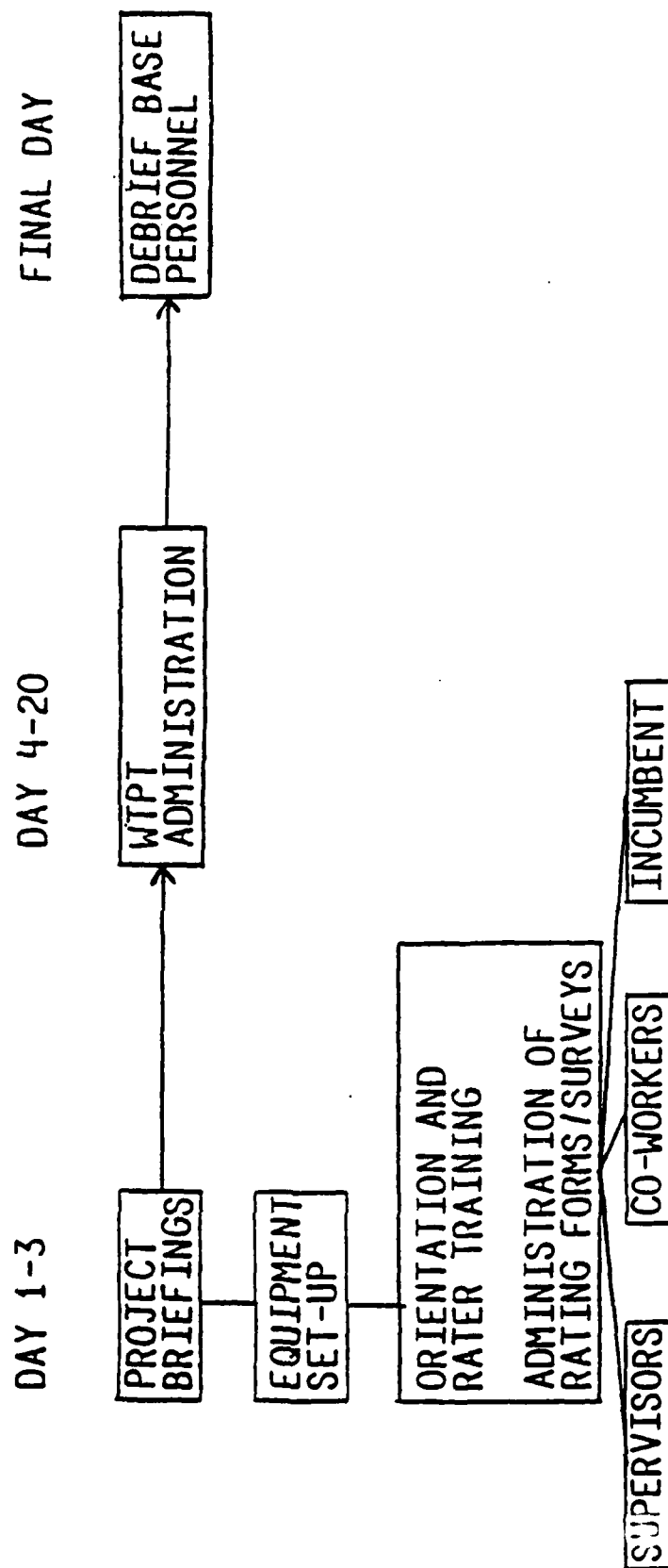
o 3 TO 4 BASES PER ENGINE

o 3 WEEKS/BASE

o TEST INCLUDES WTPT, RATING FORMS,
   SURVEYS

o TEST A MINIMUM OF TWO AIRMEN PER DAY

o TEST 100 TO 120 AIRMEN PER ENGINE

   o 26 TO 40 PER BASE

USAF AFS 426X2 JET ENGINE MECHANIC DATA COLLECTION TEST SCHEDULE

DAY 1-3   DAY 4-20   FINAL DAY

```
PROJECT              WTPT                  DEBRIEF BASE
BRIEFINGS            ADMINISTRATION        PERSONNEL
    |
EQUIPMENT
SET-UP
    |
ORIENTATION AND
RATER TRAINING

ADMINISTRATION OF
RATING FORMS/SURVEYS

SUPERVISORS    CO-WORKERS    INCUMBENT
```

TEST ADMINISTRATOR QUALIFICATIONS

o FORMER JET ENGINE MECHANICS

o RECENT TRAINING

    o REVIEW OF INSTRUMENTS DURING DEVELOPMENT

    o HANDS-ON PRACTICE WITH INSTRUMENTS

    o TRAINING WORKSHOP

83

LOGISTICAL REQUIREMENTS

0   2 DEDICATED ENGINES (QEC KIT INSTALLED)

0   SHOP ADMINISTRATION

0   ACCESS TO TECH ORDERS, TOOLS, ETC.

0   ROOMS FOR GROUP ADMINISTRATION

AIR FORCE PAYOFFS

o IMPROVED

   o PERFORMANCE MEASUREMENT

   o SELECTION, CLASSIFICATION, AND
     TRAINING

o INCREASED MISSION READINESS

WTPT Scripts and Slides

This section provides scripts and slides for use in training administrators on the two components of WTPT: Interview Testing and Hands-On Testing. Two parts, Interview Training and the Behavior Modeling Exercise, address the WTPT Interview Testing component; a third, Hands-On Testing Training addresses the other WTPT component.

Interview Training Script

This part of the training focuses on proper interviewing techniques. It will be followed by a behavior modeling exercise for practicing those techniques.

SLIDE #1 - INTERVIEW TESTING

EARLIER IN THE WORKSHOP, WE NOTED THAT WTPT CONSISTS OF TWO COMPONENTS -- HANDS-ON TESTING AND INTERVIEW TESTING. INTERVIEW TESTING MAKES UP APPROXIMATELY 50% OF THE TASKS IN WTPT. THEREFORE, IT IS IMPERATIVE THAT WE SPEND SOME TIME LEARNING INTERVIEWING SKILLS. OVER THE NEXT SEVERAL HOURS, WE WILL ACCOMPLISH THIS BY: (A) DISCUSSING THE BASICS OF INTERVIEWING, (B) VIEWING THE CONDUCT OF A PROPER INTERVIEW, AND (C) PRACTICING THE INTERVIEW TECHNIQUES WE HAVE DISCUSSED.

EVEN THOUGH THE INFORMATION BEING COLLECTED THROUGH INTERVIEWING IS MUCH THE SAME AS THAT GATHERED BY MEANS OF THE HANDS-ON COMPONENT OF WTPT, IT IS MUCH MORE DIFFICULT TO EVALUATE BECAUSE OF ITS SUBJECTIVITY. IN HANDS-ON TESTING, THE FOCUS IS ON OBSERVATION AND RECORDING; IN INTERVIEW TESTING, THE FOCUS IS ON COMMUNICATION BETWEEN INDIVIDUALS.

THE AMOUNT OF INFORMATION RECEIVED FROM THE INDIVIDUAL BEING TESTED AND THE CLARITY OF THAT INFORMATION DEPEND (TO A LARGE EXTENT) ON HOW MUCH THE INTERVIEWER CONTRIBUTES TO THE SITUATION. THE FOCUS OF OUR DISCUSSION WILL CENTER ON THE TEST ADMINISTRATOR'S ROLE IN THE PROCESS.

SLIDE #2 - PRESENTATION/DISCUSSION

IN ORDER TO EXAMINE THE INTERVIEWING PROCESS, WE WILL FOCUS ON THE COMPONENTS LISTED ON THIS SLIDE.

SLIDE #3 - OPENING THE TESTING SESSION

WHEN THE EXAMINEE FIRST ARRIVES AT THE TESTING SITE, SPECIAL EFFORT NEEDS TO BE MADE TO PLACE THE INDIVIDUAL AT EASE AND ESTABLISH RAPPORT. REMEMBER, THE EXAMINEES COME TO THE TESTING SITUATION AT A DISADVANTAGE -- THEY KNOW LITTLE OR NOTHING ABOUT WHAT WILL OCCUR, OR WHAT IS EXPECTED OF THEM.

THEREFORE, AT THIS TIME, YOU SHOULD TRY TO PLACE THE INCUMBENTS AT EASE BY INTRODUCING YOURSELF AND TALKING BRIEFLY ABOUT YOURSELF, OR SOME CASUAL TOPICS, BEFORE TURNING TO THE TASK AT HAND. THEN, PRIOR TO BEGINNING THE WTPT, YOU WILL NEED TO EXPLAIN THE PURPOSE OF THE PROJECT AND WHAT WILL BE REQUIRED OF THE EXAMINEE DURING THE TESTING PERIOD.

SLIDE #4 - ASKING QUESTIONS

1. **USE THE WTPT INFORMALLY, BUT CAREFULLY**
   WHEN ADMINISTERING THE WTPT (AND ESPECIALLY THE INTERVIEW ITEMS), PRESENT THE QUESTIONS IN AN INFORMAL MANNER. IN OTHER WORDS, USE A RELAXED APPROACH TO ASKING QUESTIONS, AS A MEANS OF PUTTING THE EXAMINEE AT EASE. HOWEVER, DON'T CONFUSE INFORMALITY WITH CARELESSNESS. THOROUGH FAMILIARITY WITH WORDING AND THE PROPER ORDER OF STEPS ALLOWS A RELAXED ATMOSPHERE TO EXIST. LACK OF FAMILIARITY RESULTS IN RIGIDITY.

2. **ASK EVERY QUESTION**
   EVEN WHEN THE EXAMINEE APPEARS TO HAVE ANSWERED A PARTICULAR QUESTION (OR STEP) AT AN EARLIER POINT, BE SURE TO ASK THE QUESTION. ASKING EVERY QUESTION WILL HELP YOU DETERMINE WHETHER OR NOT THE INCUMBENT KNOWS THE CORRECT ANSWER. DON'T RELY ON PREVIOUS COMMENTS. ALSO, AS YOU BECOME MORE FAMILIAR WITH THE EXAMINEE AS THE TEST PROGRESSES, YOU MAY HAVE A TENDENCY TO STEREOTYPE THE INDIVIDUAL AND ANTICIPATE ANSWERS. BE AWARE THAT THIS BEHAVIOR MAY LEAD TO SKIPPING QUESTIONS OR MARKING EXPECTED, RATHER THAN ACTUAL ANSWERS.

3. **DO NOT SUGGEST ANSWERS**
   RELATED TO THE PREVIOUS COMMENT ABOUT ANTICIPATING ANSWERS IS THE CONCERN WITH SUGGESTING ANSWERS. WHETHER IT'S BECAUSE YOU'VE BEGUN TO STEREOTYPE THE INDIVIDUAL AND HIS/HER RESPONSE PATTERNS, OR HAVE GROWN IMPATIENT WITH THE SLOWNESS OF HIS/HER REPLIES, YOU MUST BE CAREFUL NOT TO SUGGEST AN ANSWER. WHETHER THE ANSWER YOU SUGGEST IS RIGHT OR WRONG, THE EXAMINEE FREQUENTLY WILL PASSIVELY ACCEPT YOUR STATEMENT AS TRUTH (EVEN IF IT ISN'T).

4. **PROVIDE TRANSITION WHEN NEEDED**
   IN ORDER TO PROVIDE A SMOOTH TRANSITION BETWEEN ITEMS OR STEPS, YOU MAY NEED TO GENERATE QUESTIONS OR COMMENTS. MAKE SURE THESE STATEMENTS ARE NEUTRAL, NOT SUGGESTIVE.

5. **DO NOT LEAVE ANY STEP BLANK**
   HERE, JUST A REMINDER: BE SURE TO COMPLETE ALL STEPS ON ALL TASKS. IF YOU HAVE QUESTIONS OR CONCERNS ABOUT ANY STEP, FIRST MARK THAT STEP, THEN ANNOTATE YOUR ANSWER.

SLIDE #5 - OBTAINING ADEQUATE ANSWERS/PROBING

PROBABLY THE MOST IMPORTANT ROLE OF THE ADMINISTRATOR IS TO ENSURE THAT THE ANSWERS PROVIDED BY THE EXAMINEE ARE CLEAR AND TO-THE-POINT. TO ACCOMPLISH THIS, FREQUENTLY YOU MUST REDIRECT THE EXAMINEE, PROBE FOR ADDITIONAL INFORMATION, OR ASK FOR ELABORATION OR CLARIFICATION. SOME DIRECTIONS FOR OBTAINING ADEQUATE ANSWERS ARE AS FOLLOWS:

1. **REPEATING THE QUESTION**
   ONE OF THE MOST USEFUL PROBES IS REPETITION OF THE ORIGINAL QUESTION. WHEN INFORMATION IS MISUNDERSTOOD OR NOT HEARD, OR WHEN THE EXAMINEE WANDERS FROM THE TOPIC, REPETITION OF THE QUESTION WILL REDIRECT THE FOCUS BACK TO THE RELEVANT SUBJECT OF DISCUSSION. RESPONDENTS WILL OFTEN INTERPRET SUCH "REPETITION PROBES" AS REQUESTS FOR ADDITIONAL INFORMATION, AND WILL RESPOND APPROPRIATELY.

2. THE SILENT PROBE
    A SIMPLE, NEUTRAL WAY OF STIMULATING FURTHER DISCUSSION IS BY USING THE EXPECTANT PAUSE.
    WHEN ACCOMPANIED BY AN EXPECTANT LOOK OR NOD OF THE HEAD, SILENT PROBES ENCOURAGE
    COMMUNICATION. INEXPERIENCED INTERVIEWERS OFTEN FEEL UNCOMFORTABLE WITH THIS TECHNIQUE
    BECAUSE MOST OF ITS SUCCESS LIES IN THE ATTITUDES AND BEHAVIOR OF THE INTERVIEWER. A
    CONFIDENT, NEUTRAL, YET EXPECTANT LOOK FOSTERS COMMUNICATION WITH THE EXAMINEE.

3. ELABORATION/CLARIFICATION
    ASKING FOR ADDITIONAL INFORMATION WHEN AN INSUFFICIENT OR AMBIGUOUS RESPONSE HAS BEEN
    GIVEN ALLOWS YOU TO DETERMINE THE CORRECTNESS OR INCORRECTNESS OF THE RESPONSE WITHOUT
    GUESSING. HOWEVER, YOU MUST BEWARE NOT TO PROVIDE LEADING OR SUGGESTIVE INFORMATION IN
    YOUR PROBES, OR ALLOW THE TONE OF YOUR VOICE TO INFLUENCE AN ANSWER. SOME EXAMPLES OF
    CORRECT REQUESTS FOR ADDITIONAL INFORMATION ARE PROVIDED IN THE NEXT SLIDE.

SLIDE #6 - NEUTRAL QUESTIONS OR PROBES

APPROPRIATE PROBES TO USE DURING INTERVIEWING ARE QUESTIONS SUCH AS THOSE NOTED ON THIS SLIDE.

SLIDE #7 - RECORDING ANSWERS/RESPONSES

THE BEST TIME TO RECORD ANSWERS IS IMMEDIATELY AFTER THE RESPONSE HAS BEEN GIVEN. IN
ADDITION TO RECORDING ANSWERS, THE INTERVIEWER SHOULD ANNOTATE EXPLANATORY COMMENTS WHEREVER
NECESSARY, ESPECIALLY IF THE INFORMATION PROVIDES CLARIFICATION. STILL, THE INTERVIEWER MUST BE
ABLE TO WRITE UNDERSTANDABLE NOTES WHILE ENGAGED IN CONVERSATION. FOR RECORD-KEEPING PURPOSES,
RECORD ANY ADDITIONAL COMMENTS ON THE TEST ITSELF.

SLIDE #8 - CLOSING THE TESTING SESSION

ONCE ALL THE TASKS HAVE BEEN PERFORMED BY THE INCUMBENT AND THE WTPT QUESTIONNAIRE COMPLETED,
THE TESTING SESSION CAN BE CONCLUDED. THE PURPOSE OF THE WORK SHOULD BE REITERATED, AND THE
EXAMINEE THANKED FOR HIS/HER COOPERATION. EACH INCUMBENT SHOULD ALSO BE INSTRUCTED TO AVOID
DISCUSSING THE TESTING PROCESS WITH OTHER FIRST-TERM AIRMEN.

SLIDE #9 - INTERVIEWING DO'S

HERE ARE SOME SUGGESTED GUIDELINES FOR THINGS TO DO IN THE INTERVIEWING SITUATION.

1. SHOW POLITENESS AND COURTESY THROUGHOUT THE INTERVIEW.

2. BE IMPERSONAL. DO NOT BE CRITICAL OR SUGGEST CHANGES OR IMPROVEMENTS IN PROCEDURES,
    THE ORGANIZATION.

3. ALLOW THE WORKER SUFFICIENT TIME TO ANSWER EACH QUESTION.

4. CONDUCT THE INTERVIEW IN PLAIN, EASILY UNDERSTOOD LANGUAGE.

5. CONTROL THE INTERVIEW WITH RESPECT TO THE ECONOMIC USE OF TIME AND ADHERING
    MATTER.
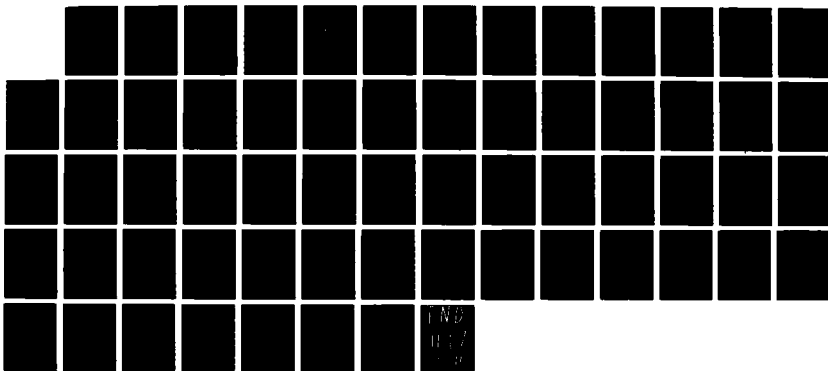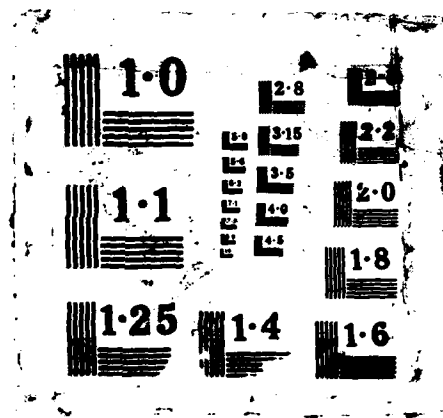
6. CONDUCT THE INTERVIEW WITH PATIENCE AND CONSIDERATION FOR NERVOUSNESS ON THE PART OF THE WORKER.

7. ENCOURAGE THE INCUMBENT TO SPEAK FREELY.

8. JOT DOWN NOTES WHENEVER NECESSARY TO CLARIFY A POINT OR TO SUPPLY BACKGROUND INFORMATION WHERE USEFUL.

SLIDE #10 - INTERVIEWING DON'TS

THIS SLIDE PROVIDES SOME SUGGESTED GUIDELINES FOR ACTIONS TO AVOID IN THE INTERVIEW SITUATION.

1. DO NOT SHOW PARTIALITY TO OPINIONS.

2. DO NOT "TALK DOWN" TO THE PERSON YOU ARE INTERVIEWING.

3. DO NOT BE INFLUENCED BY YOUR BIASES.

4. DO NOT TAKE ISSUE WITH THE RESPONDENT'S COMMENTS.

5. DO NOT USE LEADING QUESTIONS.

6. DO NOT COMPARE EXAMINEES.

Interview Training Slides

Slides #9 and 10 should be included as handouts in test administrator workshop packets.

INTERVIEW TESTING

o PRESENTATION/DISCUSSION

o VIDEOTAPED INTERVIEW

o ROLE-PLAYING

PRESENTATION/DISCUSSION

o OPENING THE TESTING SESSION

o ASKING QUESTIONS

o OBTAINING ADEQUATE ANSWERS/PROBING

o CLOSING THE TESTING SESSION

o DO'S AND DON'TS FOR INTERVIEWING

OPENING THE TESTING SESSION

O PUT THE EXAMINEE AT EASE/ESTABLISH
   RAPPORT

   o INTRODUCTIONS

O REITERATE PURPOSE OF PROJECT

   o WHY PROJECT IS BEING DONE

   o WHAT'S REQUIRED OF EXAMINEE

ASKING QUESTIONS

o USE THE WTPT INSTRUMENT INFORMALLY, BUT CAREFULLY

o ASK EVERY QUESTION

o DO NOT SUGGEST ANSWERS

o PROVIDE TRANSITION WHEN NEEDED

o DO NOT LEAVE ANY STEP BLANK

94

OBTAINING ADEQUATE ANSWERS/PROBING

0   REPEATING THE QUESTION

0   THE SILENT PROBE

0   ELABORATION

0   CLARIFICATION

95

NEUTRAL QUESTIONS OR PROBES

o IS THAT YOUR ANSWER?

o HOW DO YOU MEAN?

o ANYTHING ELSE?

o COULD YOU BE MORE SPECIFIC?

o WHAT DO YOU MEAN?

o COULD YOU TELL ME MORE ABOUT THAT?

RECORDING ANSWERS/RESPONSES

o RECORD ANSWERS IMMEDIATELY AFTER
  RESPONSE

o ANNOTATE OTHER COMMENTS

97

CLOSING THE TESTING SESSION

o MAKE SURE ALL ITEMS ARE COMPLETED

o HAVE INCUMBENT COMPLETE GENERAL
   UTILITY/ACCEPTABILITY SURVEY

o REITERATE PURPOSE OF WORK

o THANK INCUMBENT FOR COOPERATION

o REQUEST NO INFORMATION INTERCHANGE
   BETWEEN INCUMBENTS

INTERVIEWING - DO'S

o   SHOW POLITENESS AND COURTESY

o   BE IMPERSONAL

o   ALLOW SUFFICIENT TIME TO ANSWER
    QUESTIONS

o   USE PLAIN, EASILY UNDERSTOOD LANGUAGE

o   CONTROL INTERVIEW

o   CONDUCT INTERVIEW WITH PATIENCE AND
    CONSIDERATION

o   ENCOURAGE WORKER TO TALK

o   JOT DOWN NOTES WHERE NECESSARY

INTERVIEWING DON'TS

o DO NOT SHOW PARTIALITY TO OPINIONS

o DO NOT "TALK DOWN" TO WORKER

o DO NOT BE INFLUENCED BY YOUR BIASES

o DO NOT TAKE ISSUE WITH RESPONDENT COMMENTS

o DO NOT USE LEADING QUESTIONS

o DO NOT COMPARE INTERVIEWEES

Behavior Modeling Exercise

A vital part of test administrator interview training is the modeling exercise which follows the trainer's lecture on interview techniques. This exercise demonstrates the proper conduct of an interview item via a videotape of two actors who role-play an interview test item and utilize appropriate communication and probing techniques throughout the interview. The actors also demonstrate appropriate methods of opening and closing a day of testing. This exercise provides an opportunity for test administrators to observe the modeling of appropriate interview behavior.

Interview item #134 (from the 426X2 WTPT) was chosen for the exercise because it is lengthy enough to allow the demonstration of a variety of interview techniques. The videotape can be used with other specialties since the concept of good interviewing techniques is not AFS-specific.

The trainer should introduce the videotape with instructions to pay close attention to the good communications and probing skills demonstrated by the interviewer. The videotape should then be played in its entirety. Next, the trainer should facilitate discussion by replaying the segments of the tape that illustrate the various techniques. This segment of the workshop concludes with an opportunity for the test administrators to role-play interview items in pairs and thereby practice utilizing proper interview procedures. The trainer should monitor the role-play, listen for the use of appropriate techniques, and provide corrections as necessary. After everyone has played both roles (interviewer and interviewee), the trainer should discuss any issues brought up by the administrators, or observations noted.

This section contains the script used in developing the videotape employed in the modeling exercise, as well as guidelines for the trainer to follow while conducting the discussion.

Modeling Exercise Script

Step #   Dialogue

1.   Interviewer: What is the purpose of the AFTO Form 350, Reparable Item Processing Tag?
      Respondent: Controls the repair process of a part.

2.   Interviewer: Under what conditions would a supply document number entry be made in Block 13 of AFTO Form 350?
      Respondent: When you order a like item from supply.

3.   Interviewer: When working in the shop, in which block of AFTO Form 350 do you note that you have repaired an item by replacing a part?
      Respondent: Block 15.

4.   Interviewer: What is the purpose of the Job Control Number on AFTO Form 349?
      Respondent: Identifies and controls maintenance jobs.

5.   Interviewer: What do the first three numbers of the job control number on the AFTO Form 349 represent?
      Respondent: The date.
      Interviewer: CAN YOU BE MORE SPECIFIC?
      Respondent: The calendar date.

6.	Interviewer:	What does the work center entry on the AFTO Form 349 tell us?
	Respondent:	It tells you the work site.
	Interviewer:	WHAT DO YOU MEAN BY WORKSITE?
	Respondent:	Where you are assigned to work.

7.	Interviewer:	What is entered in Block 9 of AFTO Form 349 if the form is used as a dispatch form?
	Respondent:	Spot.
	Interviewer:	SPOT?
	Respondent:	Yea, like Yankee 2.
	Interviewer:	WHAT DO YOU MEAN BY YANKEE 2?
	Respondent:	This is where the aircraft is parked. It's where you go to do your work.

8.	Interviewer:	Under what condition is the National Item Identification Number (NIIN) entered in Block 20 of AFTO Form 349?
	Respondent:	I don't understand the question.
	Interviewer:	LET ME READ IT TO YOU AGAIN (repeats question).
	Respondent:	I don't know. I've never used that block.

| 9. | Interviewer: | What entry on the AFTO Form 349 identifies the part on which the work is being performed? |
| | Respondent: | Your work unit code, column C. |

| 10. | Interviewer: | Except for the FCF (Functional Check Flight), who completes the top line entry on AFTO Form 781A? |
| | Respondent: | The crew chief. |

| 11. | Interviewer: | What is the purpose of AFTO Form 781A? |
| | Respondent: | It's a historical record of all maintenance performed on the aircraft. |

| 12. | Interviewer: | What color pencil is normally used to fill in the symbol block on Form 781A when there is a discrepancy? |
| | Respondent: | Red. |

13.	Interviewer:	Besides signing in the "Inspected By" block, what else must the inspector complete to indicate that a red X condition has been cleared on AFTO Form 781A?
	Respondent:	Last name initial over the symbol.
	Interviewer:	WHAT KIND OF MARKING DEVICE WOULD YOU USE?
	Respondent:	A pencil.

14.	Interviewer:	How could you tell by reading AFTO Form 781A that a part had been ordered?
	Respondent:	What block are you talking about?
	Interviewer:	I CAN'T TELL YOU WHAT BLOCK I'M TALKING ABOUT. TAKE ANOTHER LOOK AT THE 781A AND I'LL REPEAT THE QUESTION (repeats question).
	Respondent:	There would be an order number in the discrepancy block?
	Interviewer:	IS THAT YOUR ANSWER?
	Respondent:	Yes.

15.	Interviewer:	What do the following symbols mean when entered in red in the symbol block on AFTO Form 781A? A red X?
	Respondent:	Major problem.
	Interviewer:	CAN YOU EXPLAIN TO ME WHAT YOU MEAN BY A MAJOR PROBLEM?
	Respondent:	Unsafe condition.
	Interviewer:	A red diagonal?
	Respondent:	Unknown condition.
	Interviewer:	A red dash?
	Respondent:	Minor condition.

NOW WE WILL REPLAY THE TAPE AND IDENTIFY THE TECHNIQUES USED BY THE INTERVIEWER.

(NOTE TO TRAINER: SHOW OPENING OF INTERVIEW.)

NOTICE THAT THE INTERVIEWER GREETS THE RESPONDENT BY NAME AND THEN ASKS THE RESPONDENT A LITTLE ABOUT HIMSELF. LIGHT CONVERSATION SUCH AS THIS IS USUALLY QUITE EFFECTIVE IN PUTTING A RESPONDENT AT EASE. THEN NOTICE THAT THE INTERVIEWER DEMONSTRATES HOW TO OPEN A DAY OF TESTING FOR A WTPT INCUMBENT.

(NOTE TO TRAINER: SHOW STEP #5.)

THIS IS THE FIRST TIME THE INTERVIEWER HAS TO USE A PROBE. "CAN YOU BE MORE SPECIFIC?" IS A MEANS OF OBTAINING CLARIFICATION ON AN ANSWER.

(NOTE TO TRAINER: SHOW STEP #6.)

"WHAT DO YOU MEAN BY ... ?" IS A COMMON ELABORATION PROBE. THIS INTERVIEWER IS REQUESTING MORE INFORMATION IN A NEUTRAL, NON-LEADING MANNER.

(NOTE TO TRAINER: SHOW STEP #7.)

THE INTERVIEWER USES A VERY EFFECTIVE TECHNIQUE WHEN HE REPEATS THE RESPONDENT'S ANSWER -- "SPOT" -- AND THEN PAUSES TO ALLOW THE RESPONDENT TO ELABORATE OR CLARIFY HIS ANSWER. NOTICE THAT THE INTERVIEWER DOES IT, NOT IN A QUESTIONING WAY BUT, IN A VERY EVEN TONE OF VOICE. BE CAREFUL TO ENSURE THAT YOUR FACIAL EXPRESSIONS AND TONE OF VOICE REMAIN PLEASANT, BUT NEUTRAL. FOR EXAMPLE, YOU WOULD AVOID RAISED EYEBROWS OR A QUESTIONING TONE WHICH WOULD TELL THE RESPONDENT THERE IS SOMETHING WRONG WITH HIS/HER ANSWER. THE INTERVIEWER HAS TO REQUEST FURTHER ELABORATION ON THIS STEP WITH "WHAT DO YOU MEAN BY YANKEE 2?"

(NOTE TO TRAINER: SHOW STEP #8.)

HERE, THE INTERVIEWER REPEATS THE ORIGINAL QUESTION BUT DOES NOT TRY TO EXPLAIN THE QUESTION IN ANY WAY. THE TEST QUESTIONS ARE STANDARDIZED, AND YOU SHOULD NEVER ATTEMPT TO REPHRASE THE QUESTIONS OR GIVE ADDITIONAL INFORMATION, EVEN IF THE RESPONDENT ASKS YOU TO. DOING SO WOULD BE UNFAIR FOR THOSE RESPONDENTS WHO DO NOT RECEIVE THE SAME TREATMENT.

REPEATING THE QUESTION IS ALSO VERY EFFECTIVE IF YOU FIND THE RESPONDENT WANDERING FROM THE SUBJECT OR GIVING AN IRRELEVANT ANSWER. SUCH BEHAVIOR COULD INDICATE THAT THE RESPONDENT MISUNDERSTOOD THE QUESTION.

(NOTE TO TRAINER: SHOW STEP #13.)

HERE THE INTERVIEWER ASKS A VERY SPECIFIC QUESTION ("WHAT KIND OF MARKING DEVICE WOULD YOU USE?") TO ELICIT ADDITIONAL INFORMATION. THIS MAY APPEAR TO BE A LEADING QUESTION, BUT THOROUGH INVESTIGATION OF THIS PARTICULAR STEP BY EXPERTS IN THE JET ENGINE MECHANIC SPECIALTY INDICATES THAT A RESPONDENT ASSUMES THE INTERVIEWER KNOWS THAT THE RESPONDENT IS REFERRING TO A BLACK PENCIL. THIS STEP REQUIRES, HOWEVER, THAT THE RESPONDENT VERBALIZE THE MARKING DEVICE. IN SITUATIONS SUCH AS THIS, IT IS NECESSARY FOR TEST ADMINISTRATORS TO REACH A CONSENSUS IN ADVANCE ON THE TYPE OF PROBE TO USE TO AVOID BLATANTLY LEADING THE RESPONDENT.

(NOTE TO TRAINER: SHOW STEP #14.)

NOTICE THAT THE INTERVIEWER DOES A GOOD JOB OF MAINTAINING CONTROL OF THE INTERVIEW AND NOT SUCCUMBING TO THE RESPONDENT'S MANIPULATION OF THE QUESTION. AFTER THE INTERVIEWER REPEATS THE QUESTION, THE RESPONDENT GIVES AN ANSWER WITHOUT CONVICTION. HE IS WAITING FOR CONFIRMATION FROM THE INTERVIEWER THAT THE ANSWER IS CORRECT. THE INTERVIEWER HANDLES THIS VERY WELL BY ASKING, "IS THAT YOUR ANSWER?" THIS IS PROBABLY ONE OF THE MOST FREQUENT PROBES YOU AS INTERVIEWERS WILL HAVE TO USE. MANY FIRST-TERMERS MAY FEEL INSECURE IN THEIR ANSWERS, AS THIS RESPONDENT DID. OTHERS MAY PROVIDE SEVERAL ANSWERS TO A QUESTION, HOPING THE INTERVIEWER WILL ACCEPT ONE OF THEM AS THE CORRECT ANSWER. YOU MUST FORCE THE RESPONDENT TO MAKE A CHOICE.

(NOTE TO TRAINER: SHOW STEP #15.)

FINALLY, THE INTERVIEWER HAS TO ASK FOR ADDITIONAL INFORMATION TO CLARIFY WHAT THE RESPONDENT MEANS BY "MAJOR PROBLEM."

(NOTE TO TRAINER: SHOW CLOSING OF INTERVIEW.)

THE INTERVIEWER CLOSES NOT ONLY AN INTERVIEW, BUT ALSO A DAY OF TESTING. HE REITERATES IMPORTANT POINTS, THANKS THE INCUMBENT, AND SAYS FAREWELL. NOTICE HE GIVES NO INDICATION OF HOW THE INCUMBENT PERFORMED.

Hands-On Testing Training Script

In this third segment of WTPT training, test administrator teams are shown correct procedures for performing all WTPT hands-on tasks. The aim in these exercises is to calibrate the observation and rating processes of the administrators. The time required for this training component may vary based on the experience of the administrators. It is imperative that administrators are rating WTPT in the same manner.

At this point in the workshop, the large group will separate into their respective evaluation teams. Separate rooms and videocassette players need to be reserved beforehand for this exercise. Approximately 4 hours will be required for this task.

Videotapes are then shown for WTPT hands-on tasks, and administrators are required to rate an individual's performance on these tasks. A task is shown being performed either correctly or incorrectly. After each task is performed and evaluated in WTPT booklets, the group should reach consensus on their ratings of each step of the task, as well as on their overall rating of the task. On those tasks that were shown being performed incorrectly, the correct procedures are shown following the group discussion.

SLIDE #1 - HANDS-ON TESTING

WE'VE SPENT THE LAST SEVERAL HOURS FOCUSING ON THE INTERVIEW TESTING COMPONENT OF WTPT. WHAT I'D LIKE TO DO NOW IS CONCENTRATE ON HANDS-ON TESTING. THE PURPOSE WILL BE TO FAMILIARIZE EACH OF YOU WITH THE HANDS-ON TASKS ON WHICH YOU WILL BE EVALUATING INCUMBENTS. IN ADDITION, BEFORE YOU GO OUT ON THE PRETEST AND FULL-SCALE DATA COLLECTION EFFORT, WE NEED TO FEEL COMFORTABLE THAT ALL OF YOU ARE OBSERVING AND EVALUATING INCUMBENTS IN THE SAME WAY.

SLIDE #2 - APPROACH

OUR APPROACH TODA\ WILL CONSIST OF THREE MAIN ACTIVITIES THAT CENTER ON THESE HANDS-ON TASKS. FIRST, WE WILL DIVIDE INTO THE THREE ENGINE TEAMS AND THEN VIEW VIDEOTAPES OF JET ENGINE MECHANICS PERFORMING EACH TASK.

DURING THE PERFORMANCE OF EACH TASK, YOU SHOULD FOLLOW ALONG IN YOUR WTPT TEST BOOKLET AND PLACE CHECKMARKS JUST AS IF YOU WERE EVALUATING SOMEONE DURING DATA COLLECTION. AT THE COMPLETION OF EACH TASK, THE TAPE WILL BE STOPPED AND YOU WILL NEED TO GIVE AN OVERALL RATING FOR THAT TASK.

AFTER ALL OF YOU HAVE COMPLETED YOUR EVALUATIONS ON THAT TASK, WE WILL DISCUSS EACH STEP (AS WELL AS THE OVERALL RATING), FOCUSING ON HOW COMPARABLE YOUR RATINGS ARE FOR THAT TASK. THE AIM HERE WILL BE TO REACH CONSENSUS BEFORE MOVING TO A NEW TASK. ALL TASKS WILL BE OBSERVED AND DISCUSSED IN THIS MANNER.

Hands-On Testing Training Slides

HANDS-ON TESTING

o PURPOSE

   o FAMILIARIZE TEST ADMINISTRATORS
      WITH HANDS-ON TESTS

   o ENSURE CONSISTENCY OF
      ADMINISTRATOR RESPONSES

HANDS-ON TESTING

O APPROACH

    o VIEW VIDEOTAPED TASK PERFORMANCE

    o EVALUATE PERFORMANCE

    o DISCUSS EVALUATIONS

Rater Training Session

Once they arrive at a base for data collection, test administrators may be responsible for effectively conducting a rater training session for all WTPT incumbents, as well as the incumbents' supervisors and peers, to enable these individuals complete their rating forms.

There are three parts to the rater training session. The rater training briefing is the first component. The briefing explains the purpose of the visit and stresses the importance of the raters' participation in the project. This briefing is almost identical to the Base Introductory Briefing. Since the rater training session precedes administration of the WTPT, the briefing provides test administrators an opportunity to establish rapport with the incumbents and other raters and generate in them a degree of enthusiasm and dedication to the project.

The briefing is followed by 1 1/2 hours of intensive rater training. The purposes of the rater training are threefold: (a) to familiarize raters with the supplemental questionnaires and the four rating forms, including the various rating scales, scale anchors, and item formats; (b) to educate raters on how to make accurate ratings; and (c) to provide an opportunity for practice on two of the rating forms. A substantial portion of the training consists of lecture, with slides used as learning aids. The program also provides opportunities for trainee participation and group discussion. Due to the length of the training session, it is advised that at least one break be given.

The third part of the rater training session is the administration of the rating forms. Test administrators distribute answer sheets to appropriate raters. Each incumbent rates himself/herself and receives ratings from his/her supervisor and one to three coworkers. It is the responsibility of the test administrators to fill in the names and social security account numbers of the rater and ratee on each answer sheet prior to distribution.

The trainer should spend several hours conducting an entire rater training session for test administrators, beginning with the briefing. This gives test administrators the opportunity to experience the training from an incumbent's viewpoint and also to observe how an effective training session is conducted. The trainer should encourage administrators to voice any concerns or questions they might have. The trainer should then provide time for the administrators to familiarize themselves with the training session. As was the case for the Base Introductory Briefing, only one team member need be responsible for conducting a rater training session; however, all administrators should be prepared.

Appendices E and F contain the Administrator's Guide and the Trainee Booklet needed to conduct the rater training session.

Rater Training Briefing

SLIDE #1 - JOB PERFORMANCE MEASUREMENT PROJECT

GOOD MORNING/AFTERNOON. MY NAME IS _____. THESE ARE MY FELLOW TEAM MEMBERS _____ AND _____. WE REPRESENT THE AIR FORCE HUMAN RESOURCES LABORATORY AT BROOKS AFB, TX. WE ARE HERE AS PART OF THE AIR FORCE'S JOB PERFORMANCE MEASUREMENT PROJECT. I'D LIKE TO TAKE A FEW MINUTES TO GIVE YOU SOME DETAIL ON THE PROJECT AND TO TELL YOU WHAT WE WILL BE DOING DURING OUR VISIT AND HOW YOU WILL BE INVOLVED. AFTER MY BRIEFING, WE WILL SPEND ABOUT 1 1/2 HOURS GOING THROUGH A RATER TRAINING PROGRAM. FOLLOWING THE TRAINING, EACH OF YOU WILL COMPLETE A SET OF RATING FORMS, RATING EITHER YOURSELF, YOUR COWORKERS, OR YOUR SUBORDINATES.

SLIDE #2 - OVERVIEW

FIRST, I'D LIKE TO DISCUSS SOME REASONS WHY THE AIR FORCE IS CONDUCTING THIS PROJECT. THE WORK THE AIR FORCE HAS DONE OVER THE LAST YEAR IN YOUR SPECIALTY INVOLVES THE DEVELOPMENT OF VARIOUS WAYS TO MEASURE AN INDIVIDUAL'S ABILITY TO PERFORM HIS/HER JOB. I WILL THEN DISCUSS OUR PLANS TO COLLECT JOB PERFORMANCE INFORMATION WHILE WE ARE HERE, AND THE PAYOFFS OF THIS WORK FOR THE AIR FORCE.

SLIDE #3 - BACKGROUND

WHY IS THE AIR FORCE DOING THIS WORK? THERE ARE SEVERAL MAIN REASONS. FIRST, CONGRESS HAS ASKED THE SERVICES TO REEXAMINE THE WAY PEOPLE ARE SELECTED AND ASSIGNED TO SPECIALTIES, AND ULTIMATELY, HOW THEY ARE PERFORMING ON THE JOB. THE AIR FORCE IS ALSO INTERESTED IN ANSWERING THIS QUESTION, AS WELL AS IN USING JOB PERFORMANCE INFORMATION TO KNOW WHO TO TRAIN AND WHAT TYPE OF TRAINING TO GIVE.

SLIDE #4 - OBJECTIVES

THEREFORE, THE PRIMARY OBJECTIVES OF OUR EFFORT ARE TO DEVELOP A PERFORMANCE MEASUREMENT TECHNOLOGY (A) TO EVALUATE TRAINING PROGRAMS, AND (B) TO ASSIST IN EVALUATING THE SETTING OF ENLISTMENT STANDARDS.

SLIDE #5 - JOB PERFORMANCE MEASUREMENT SYSTEM

THE JOB PERFORMANCE MEASUREMENT SYSTEM THAT HAS BEEN DEVELOPED FOR YOUR SPECIALTY CONSISTS OF THREE MAIN COMPONENTS:

1. WALK-THROUGH PERFORMANCE TESTING
2. RATING FORMS
3. FACTORS RELATED TO PERFORMANCE MEASUREMENT QUESTIONNAIRES

WALK-THROUGH PERFORMANCE TESTING CONSISTS OF TWO MAJOR COMPONENTS: (A) HANDS-ON TESTING, AND (B) INTERVIEW TESTING. HANDS-ON TESTING REQUIRES INCUMBENTS TO PERFORM TASKS THEY ACTUALLY DO ON THE JOB. INTERVIEW TESTING REQUIRES INCUMBENTS TO EXPLAIN THE STEPS INVOLVED IN PERFORMING THE TASKS THEY ACTUALLY DO ON THE JOB.

FOUR DIFFERENT TYPES OF RATING FORMS WERE DEVELOPED. THESE RATING FORMS WILL BE COMPLETED BY SUPERVISORS, COWORKERS, AND INCUMBENTS. THESE RATING FORMS ARE:

1. TASK RATING FORM
2. DIMENSIONAL RATING FORM
3. GLOBAL RATING FORM
4. AIR FORCE-WIDE RATING FORM

THROUGH QUESTIONNAIRES ADMINISTERED AT THE SAME TIME AS THE RATING FORMS, WE WILL ALSO BE COLLECTING INFORMATION ABOUT AN INCUMBENT'S EXPERIENCE ON EQUIPMENT AND SPECIFIC TASKS, PRIOR TRAINING HE/SHE HAS RECEIVED, AND LEVEL OF MOTIVATION.

SLIDE #6 - DATA COLLECTION

WE ARE CURRENTLY IN THE MIDST OF FULL-SCALE DATA COLLECTION. FOR THE NEXT 3 TO 4 MONTHS, WE WILL BE COLLECTING DATA FROM FIRST-TERMERS IN THE 426X2 SPECIALTY. WE WILL VISIT 3-4 BASES PER ENGINE TYPE (J-57, J-79, AND TF-33), FOR A TOTAL OF 9-12 BASES. WE WILL UTILIZE THREE TEAMS OF THREE TEST ADMINISTRATORS EACH (ONE TEAM PER ENGINE TYPE). EACH TEAM WILL SPEND APPROXIMATELY 3 WEEKS AT EACH BASE AND WILL EVALUATE AT LEAST TWO AIRMEN PER DAY. WE HOPE TO COLLECT DATA FROM A TOTAL OF 100-120 AIRMEN PER ENGINE, USING WALK-THROUGH PERFORMANCE TESTING, RATING FORMS, AND OTHER QUESTIONNAIRES. THIS MEANS WE WILL BE TESTING 25-40 AIRMEN PER BASE WHO HAVE BEEN ON THE JOB APPROXIMATELY 6 MONTHS AND HAVE UP TO 48 MONTHS OF SERVICE TIME.

SLIDE #7 - DATA COLLECTION TEST SCHEDULE

THIS IS WHAT OUR TESTING SCHEDULE LOOKS LIKE FOR YOUR BASE AND OTHERS INVOLVED IN THE DATA COLLECTION EFFORT. (NOTE TO TRAINER: TALK-THROUGH THIS SCHEDULE, STEP BY STEP.)

SLIDE #8 - AIR FORCE PAYOFFS

WHAT WILL THIS WORK ACCOMPLISH? IT WILL:

1. IMPROVE THE MEASUREMENT OF PERFORMANCE.
2. IMPROVE THE AIR FORCE'S SYSTEM OF SELECTING, CLASSIFYING, AND TRAINING INDIVIDUALS.
3. INCREASE MISSION READINESS.

Slides #1, 5, 6, and 7 are AFS-specific. The trainer should tailor these slides as necessary to accommodate the AFS under consideration.

JOB PERFORMANCE MEASUREMENT PROJECT
JET ENGINE MECHANIC
(AFS 426X2)

OVERVIEW

o BACKGROUND

o TEST DEVELOPMENT

o DATA COLLECTION PLANS

o SUMMARY

BACKGROUND

o CONGRESSIONAL MANDATE TO LINK
  ENLISTMENT STANDARDS TO JOB
  PERFORMANCE

o REQUESTS FOR RESEARCH FROM AIR FORCE
  COMMUNITY

  o AIR TRAINING COMMAND (ATC)

  o MILITARY PERSONNEL CENTER (MPC)

  o AIR FORCE CIVILIAN PERSONNEL
    MANAGEMENT CENTER (AFCPMC)

OBJECTIVES

o DEVELOP PERFORMANCE MEASUREMENT TECHNOLOGY TO

   o EVALUATE TRAINING SYSTEMS

   o ASSIST IN SETTING ENLISTMENT STANDARDS

JOB PERFORMANCE MEASUREMENT SYSTEM
JET ENGINE MECHANIC (AFS 426X2)
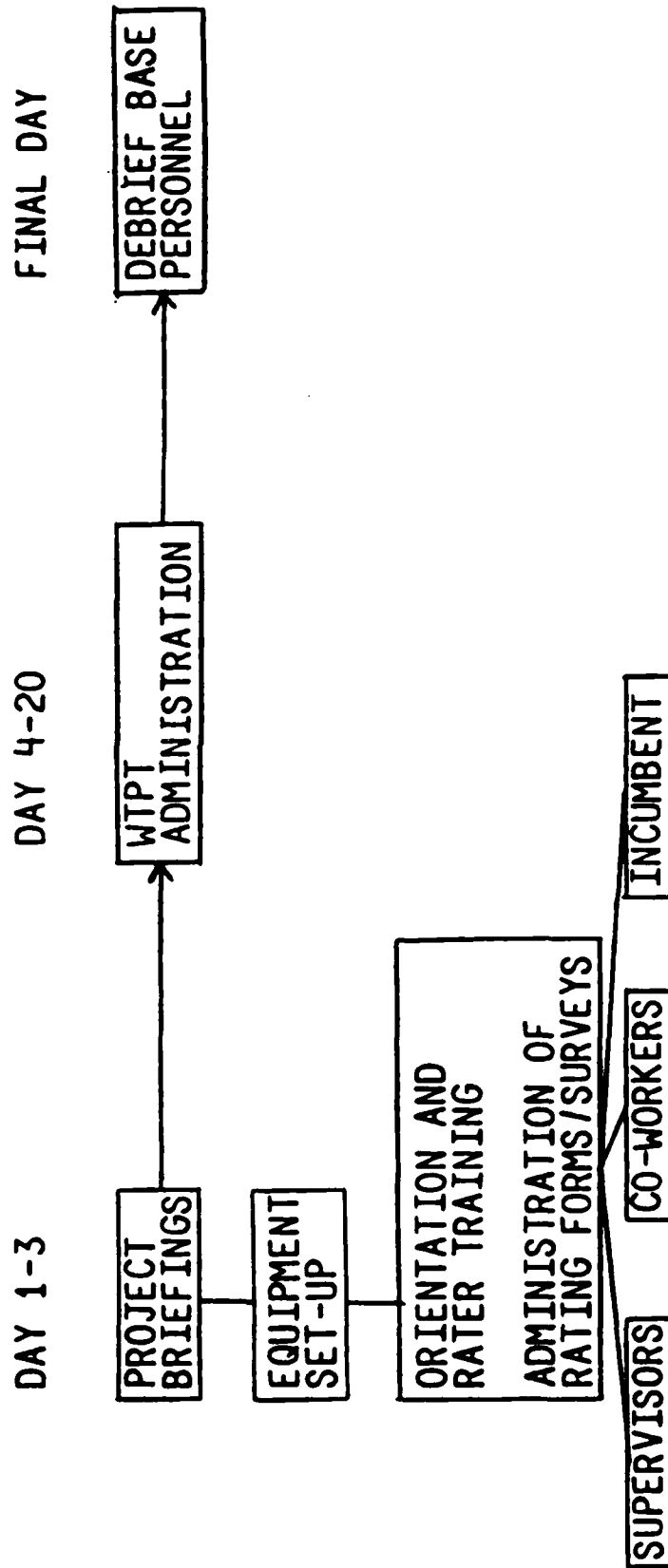
o WALK-THROUGH PERFORMANCE TESTING
   (WTPT)

o RATING FORMS

o FACTORS RELATED TO PERFORMANCE
   MEASUREMENT QUESTIONNAIRES

DATA COLLECTION

o 3 TEAMS OF 3 TEST ADMINISTRATORS
   (EACH TO AN ENGINE)

o 3- TO 4-MONTHS

o 3 TO 4 BASES PER ENGINE

o 3 WEEKS/BASE

o TEST INCLUDES WTPT, RATING FORMS, AND
   SURVEYS

o TEST A MINIMUM OF TWO AIRMEN PER DAY

o TEST 100 TO 120 AIRMEN PER ENGINE

   o 25 TO 40 PER BASE

USAF AFS 426X2 JET ENGINE MECHANIC DATA COLLECTION TEST SCHEDULE

DAY 1-3   DAY 4-20   FINAL DAY

PROJECT BRIEFINGS

EQUIPMENT SET-UP

ORIENTATION AND RATER TRAINING

ADMINISTRATION OF RATING FORMS/SURVEYS

SUPERVISORS

CO-WORKERS

INCUMBENT

WTPT ADMINISTRATION

DEBRIEF BASE PERSONNEL

AIR FORCE PAYOFFS

o IMPROVED

    o PERFORMANCE MEASUREMENT

    o SELECTION, CLASSIFICATION, AND
      TRAINING

o INCREASED MISSION READINESS

V. TRAINING PROGRAM VARIATIONS AND CONSTRAINTS

The information included in this training package is designed to improve the performance of test administrators; however, there is no way to guarantee success just by following the outline provided. Many equipment, time, situational, and personnel constraints can affect both the training approach taken and the outcomes derived. Therefore, the trainer must remain flexible in terms of materials and content used. Although there is no way to anticipate all possible situations, it is possible to note several that were encountered in the Jet Engine Mechanic project, as well as other issues that were of concern.

In most situations, WTPT training will face time constraints. For AFS 426X2, 3 to 4 months of training time was available, but this will likely prove to be an exception. The training program developer will probably be allowed no more than several weeks to bring administrators to the desired level of proficiency. Consequently, decisions will have to be made concerning optimization of training content and format. In addition, training time will be influenced by the characteristics and experience of the test administrators. In this instance, all test administrators were former Jet Engine Mechanics, and much of the fundamental training could be bypassed. This will not always be the case.

Subsequent to Jet Engine Mechanic training/data collection, test administrators (in most AFSs) have been active-duty NCOs. For active-duty test administrators, their total time available for training and data collection is limited by how long the Major Commands will allow them to be absent from their units. As a result, no more than 2 weeks were available for training purposes, and all training was encapsulated within this period of time. An example of this training schedule can be found in Appendix G. Also, when active-duty test administrators are used, there is no guarantee that those used during pretest will return for data collection. Consequently, training must be thorough and complete on each occasion.

Other training content variations should be noted at this point. First, because test administrators remain in the field collecting data for several months, there is no guarantee that high levels of accuracy and reliability will be maintained across test administrators. Because of this concern in post-Jet Engine Mechanic data collection efforts, a shadow scoring/recalibration training program was initiated. This approach involved periodic "retraining" of all test administrators. Recalibration training focused on re-use of videotape viewing subsequent to the first data collection trip. In addition, throughout data collection, a shadow scoring procedure was initiated, whereby multiple test administrators rated the same individuals, and then met, discussed, and reached agreement on what ratings should have been given to each WTPT examinee. A description of the approach used for shadow scoring is included in Appendix H.

The Rater Training Session presents another time-related constraint. Collection of rating forms and questionnaire data from incumbents, coworkers, and supervisors requires a considerable amount of time to accomplish (as much as 2 hours). For the Jet Engine Mechanic Specialty, it was not deemed possible to remove large groups of mechanics from their jobs for more than 4 hours. This served to limit the time available for rater training. Therefore, a concise, yet comprehensive training package had to be developed to overcome this time constraint. In addition, test administrators had to be trained to effectively conduct the Rater Training Session within prescribed time limits.

Other issues related to rater training also need to be discussed. First, while the training exercises presented in this manual are for Jet Engine Mechanics, as new AFSs are tested, new scenarios for Exercises I and II must be developed. An example of AFS variations is included in Appendix I. A second rater training variation involved Exercise III, which uses a discussion between supervisors to highlight rating errors frequently made by raters. With AFS 426X2, raters

read the discussion individually prior to discussion. In subsequent specialties, individuals were asked to "play the part" of supervisors in the exercise, reading them aloud. This was found to improve group participation and enhance the effectiveness of the exercise.

Many other variations and constraints of varying importance can be noted, ranging from personality conflicts to turnover issues. The issues presented above are some of the most important, but the training program developer would be wise to anticipate potential problems and devise effective strategies to deal with them.

VI. CONCLUDING REMARKS

This training package has been assembled as an example of the type of training given AFS 426X2 test administrators. It has also been designed to serve as a model for future training efforts of this sort. Because of the requirements inherent in the Air Force's criterion development effort, the focus of training has been twofold. Included are descriptions and materials necessary to train (a) WTPT administrators to provide accurate assessments of the performance of first-term airmen, and (b) rating form administrators to provide rater training. A list of pertinent references used in the development of this training package is included at the end of the package; however, the reader interested in additional information about WTPT or rating form development is specifically referred to Alba and Dickinson (1985) and Bierstedt (1985).

122

BIBLIOGRAPHY

Alba, P.A., & Dickinson, T.L. (1985). Walk-through performance test development for jet engine mechanic (AFS 426X2). Unpublished manuscript. Brooks AFB, TX: Air Force Human Resources Laboratory.

Alba, P.A., & Wilcox, T. (1985). Walk-through performance testing administrator's manual for jet engine mechanic (AFS 426X2). Unpublished manuscript. Brooks AFB, TX: Air Force Human Resources Laboratory.

Bierstedt, S.A. (1985). Rating form development for jet engine mechanic specialty. Unpublished manuscript. Brooks AFB, TX: Air Force Human Resources Laboratory.

Campbell, D.T. (1958). Systematic error on the part of human links in communication systems. Information and Control, 1, 334-369.

Campbell, R.C. (1979, October). Hands-On testing: A model for scorer training. Paper presented at the 21st Annual Meeting of the Military Testing Association, San Diego, CA.

Carrol, S.J., & Schneier, C.E. (1982). Performance appraisal and review systems: The identification, measurement, and development of performance in organizations. Glenview, IL: Scott, Foresman.

Eitington, J. (1976). Training methods manual. Washington, DC: Department of the Interior.

Frick, J., & Semmel, M.J. (1978). Observer agreement and reliabilities of classroom observational measures. Review of Educational Research, 48, 157-184.

Goldstein, A.P., & Sorcher, M. (1974). Changing supervisor behavior. New York: Pergamon.

Hakel, M.D. (1976). Some questions and comments about applied learning. Personal Psychology, 29, 361-363.

Hedge, J.W., Lipscomb, M.S., Ballentine, R.D., & Gould, R.B. (1984, August). Walk-Through performance testing: An innovative approach to work sample testing. Symposium held at the 92nd Annual Convention of the American Psychological Association, Toronto, Canada.

Herbert, J., & Athredge, C. (1975). A guide for developers and users of observation systems and manuals. American Research Journal, 12, 1-20.

Kahn, R.L., & Cannel, C.F., (1983). The dynamics of interviewing: Theory, technique, and cases. New York: John Wiley.

Landy, F.J., & Farr, J.L. (1983). The measurement of work performance: Methods, theory, and applications. New York: Academic Press.

Latham, G.P., & Wexley, K.N., (1981). Increasing productivity through performance appraisal. Reading, MA: Addison-Wesley.

National Institute on Drug Abuse (1979). Training of trainers-participant's manual. Washington, DC: Department of Health, Education, and Welfare.

National Institute on Drug Abuse (1979). Training of trainers-trainer's manual. Washington, DC: Department of Health, Education, and Welfare.

Office of the Assistant Secretary of Defense (MRA&L) (1983, December). Second annual report to congress on joint-service efforts to link standards for enlistment to on-the-job performance. Washington, DC: Department of Defense.

Sorcher, M., & Goldstein, A.P. (1972). A behavior modeling approach in training. Personnel Administration, 35, 35-41.

Spool, M.D. (1978). Training programs for observers of behavior: A review. Personal Psychology, 31, 853-888.

Stallings, J.A. (1977). A handbook on classroom observations and teaching models. Belmont, CA: Wadsworth Publishing Co., Inc.

Thorton, G.C., & Zorich, S. (1980). Training to improve observer accuracy. Journal of Applied Psychology, 65, 351-351.

United States Department of Labor (1972). Handbook for analyzing jobs. Washington, DC: U.S. Government Printing Office.

University of Michigan Survey Research Center (1976). Interviewer's Manual (rev. ed.). Ann Arbor, MI: Institute for Social Research.

Warwick, D.C., & Linninger, C.A. (1975). The sample survey theory and practice. New York: McGraw-Hill.

Wexley, K.N., & Latham, G.P. (1981). Developing and training human resources in organizations. Glenview, IL: Scott, Foresman.

Wexley, K.N., Sanders, R.E., & Yukl, G.A. (1973). Training interviewers to eliminate contrast effects in employment interviews. Journal of Applied Psychology, 57, 233-236.

124

APPENDIX A: SUGGESTED AGENDA FOR
TRAINING ORIENTATION WORKSHOP

I.   Introduction

II. Review of JPMS Instruments

     A. Administrator's Manual

     B. Work Sample Tests

         1. Hands-on Tests
         2. Interview Tests
         3. Related Technical Orders/Job Guides

     C. Rating Forms

         1. Task
         2. Dimensional
         3. Global
         4. Air Force-Wide

     D. Supplemental Questionnaires

         1. General Acceptability/Utility
         2. General Background
         3. Rating Form Questionnaire
         4. Task Experience Ratings

III. Observation Training

     A. Techniques for Accurate Observation
     B. Practice

APPENDIX B: CHECKLIST OF WORKSHOP MATERIALS

Overhead Projector

Videocassette Players

Workshop Introduction Slides and Script

* Workshop Agenda

Overview Briefing Slides & Script

* Base Introductory Briefing Slides and Script

* Administrator's Manual for WTPT

. Interview Training Slides and Script

* Interviewer Do's and Don'ts (Copies of Slides #9 and 10)

            Interview Modeling Exercise Videotape & Discussion Guidelines

* WTPT Test Booklets

Hands-On Training Slides and Script

Videotapes of WTPT Hands-On Tasks

Rater Training Briefing Slides and Script

* Rater Training Administrator's Guide

Rater Training Exercise I and II Rating Forms

Rater Training Trainee Booklet

Sample Rating Form Booklet

* These items should be included in the administrator's workshop packets.

126

APPENDIX C: RATER TRAINING CHECKLIST

Supplies
Overhead Projector
Briefing Notes ____
Briefing Slides ____
Administrator's Guide ____
Training Slides ____
Trainee Booklets ____
Sample Rating Form Booklets ____
Exercise I - Air Force-Wide ____
Exercise II - Dimensional ____
Extra Pens ____

Actions
Pass around sign-up sheet ____
Distribute Trainee Booklets ____
Give Briefings ____
Distribute Sample Rating Form Booklets ____
Distribute Exercise I - Air Force-Wide ____
Distribute Exercise II - Dimensional ____
Pick up Trainee Booklets ____
Pick up Sample Rating Form Booklets ____
Pick up Exercise I - Air Force-Wide ____
Pick up Exercise II - Dimensional ____
Distribute Privacy Act Statement ____

Things to Remember

1. Talk to your audience - especially about those portions of the training that are not part of the Trainee Booklet.

2. Make sure the overhead projector is properly focused -- check for this after you finish the briefing and are ready to begin the actual training.

3. Be sure to give at least one break during the training session. A good time is immediately prior to administering the rating forms. You might give two breaks during the afternoon session.

4. Pick up all booklets and exercises -- take a quick count of how many you hand out and how many you pick up. Every booklet must be accounted for.

5. Review each rating form booklet as it is turned in. Ensure there are no missing data.

6. This is the first time the incumbents and their supervisors and peers will see you and hear about why you are at their base. Present a good attitude. Enthusiasm is caught, not taught!!

APPENDIX D: PRIVACY ACT STATEMENT

In accordance with the Air Force Privacy Act Program, AFR 12-35, paragraph 8, the following information about this survey is provided:

a. Authority. 10 U.S.C., 8012, Secretary of the Air Force: Powers and Duties Delegation by.

b. Principal Purpose. The data collected are to be used for research purposes only.

c. Routine Use. The information collected will be used by the Air Force Human Resources Laboratory in a research study to link job performance with enlistment standards.

d. Participation in this survey is entirely voluntary.

e. No adverse action of any kind may be taken against any individual who elects not to participate in this survey.

HAND OUT RATER TRAINING BOOKLETS, THEN SAY: <u>WE ARE GOING TO BEGIN THE RATER TRAINING SESSION.</u> <u>PLEASE FOLLOW ALONG WHILE I READ OUT LOUD. DO NOT MARK IN THE BOOKLETS.</u>

I. Introduction

For the next several hours, your time will be spent focusing on the rating forms you will complete as part of this research project. You will use several rating forms to rate the performance of your coworkers and yourself. In addition, your supervisor and several coworkers will use the same forms to rate you.

Before you use any of the rating forms, we are going to talk about each form, its purpose, and how to use each form to effectively rate a coworker or yourself. We are also going to discuss some ideas that will help you use the rating forms and make the most accurate ratings possible.

It is essential to the outcome of this project that you be truthful and honest in your ratings. The ratings will not be seen by your coworkers, supervisors, or anyone else connected with your unit. The data collected will be seen only by Air Force Human Resources Laboratory personnel and the private contractor associated with this project. The information you provide will be coded to assure anonymity, and the rating forms will subsequently be destroyed. The ratings will be used for research purposes only and will <u>in no way</u> affect anyone's career. Therefore, please rate each person as accurately as possible.

II. Explanation of Rating Scale

A. SHOW OVERHEAD OF RATING SCALE - PROFICIENCY BASE

Each rating form uses a 5-point scale (5 high - 1 low). To help you make more accurate ratings, the points on the scale are labeled, or anchored. You will notice that these anchors describe a certain level of proficiency. Proficiency refers to how skilled a person is at performing various tasks on the job, ignoring interpersonal factors (willingness to work, cooperating with others) or situational factors (lack of tools or parts, weather conditions).

READ THROUGH EACH LEVEL

B. SHOW OVERHEAD OF RATING SCALE - PERFORMANCE BASE

One of the rating forms you will be using is not technical in its orientation. The scale anchors of this form refer to various levels of performance rather than levels of proficiency. The rating form will examine not only technical ability, but also other factors that contribute to a mechanic's performance on the job.

READ THROUGH EACH LEVEL

C. SHOW OVERHEAD OF BEHAVIORAL EXAMPLES - QUALITY CONTROL

Three of the rating forms will include short paragraphs that describe behavior typical to each level on the scale. These behavioral examples will aid you in making your ratings.

REFER TO THE OVERHEAD AND SAY:

<u>THIS PARTICULAR ITEM RATES A PERSON'S LEVEL OF PROFICIENCY IN THE AREA OF QUALITY CONTROL.</u> <u>NOTICE THAT A DEFINITION OF QUALITY CONTROL IS GIVEN FIRST.</u>

POINT TO AND READ DEFINITION

THE DEFINITION IS FOLLOWED BY THE ANCHOR FOR EACH LEVEL, THE CORRESPONDING NUMBER FOR EACH LEVEL, AND THE BEHAVIORAL EXAMPLES.

POINT TO EXAMPLES, READ THROUGH EACH EXAMPLE, BEGINNING WITH LEVEL 5. READ ACROSS FORM, FROM LEFT TO RIGHT, STATING THE LEVEL, THE NUMBER, AND THEN THE BEHAVIORAL EXAMPLE.

    D. SHOW OVERHEAD OF BEHAVIORAL EXAMPLES - INITIATIVE/EFFORT

REFER TO THE OVERHEAD AND SAY:

HERE IS ANOTHER SET OF BEHAVIORAL EXAMPLES. THESE EXAMPLES REFER TO VARIOUS LEVELS OF PERFORMANCE IN THE AREA OF INITIATIVE/EFFORT.

ALLOW SUFFICIENT TIME FOR INCUMBENTS TO READ SEVERAL EXAMPLES.

IT IS IMPORTANT THAT YOU READ ALL THE BEHAVIORAL EXAMPLES THOROUGHLY BEFORE DECIDING ON A RATING. DO NOT EXPECT A PERSON'S JOB-RELATED BEHAVIOR TO BE IDENTICAL TO A GIVEN BEHAVIORAL EXAMPLE. THE EXAMPLES ARE IN NO WAY MEANT TO INCLUDE ALL POSSIBLE BEHAVIORS. USE THE EXAMPLES ONLY AS GUIDELINES FOR DETERMINING A RATING.

ASK: ARE THERE ANY QUESTIONS REGARDING THE RATING SCALE?

III. Explanation of Rating Forms

DISTRIBUTE SAMPLE COPIES OF RATING FORM BOOKLETS. SAY: THESE ARE SAMPLES OF THE RATING FORM BOOKLETS YOU WILL BE USING LATER. WE WILL LOOK AT EACH FORM BRIEFLY. DO NOT MARK IN THESE BOOKLETS. PLEASE TURN TO THE GLOBAL RATING FORM ON PAGE 3.

    A. GLOBAL RATING FORM

This rating form has two items. The first item asks for a rating of a person's overall technical proficiency. The second item asks for a rating of a person's overall social/interpersonal proficiency. This form utilizes behavioral examples to aid you in making your ratings.

ALLOW TIME FOR EXAMINATION OF THE FORM. THEN SAY: PLEASE TURN TO THE DIMENSIONAL RATING FORM ON PAGE 6.

    B. DIMENSIONAL RATING FORM

The purpose of this rating form is to evaluate a mechanic's proficiency on a number of important job areas or dimensions. Again, the behavioral examples will serve as a guide in determining your ratings.

ALLOW TIME FOR EXAMINATION OF THE FORM. THEN SAY: PLEASE TURN TO THE TASK RATING FORM ON PAGE 13.

    C. TASK RATING FORMS

The purpose of this rating form is to evaluate proficiency on a variety of tasks critical to first-term Jet Engine Mechanics. This form contains tasks common to the J-57, J-79, and TF-33

engines and to the flightline and shop areas. It also contains items unique to the engine you work on and your functional area.

ALLOW TIME FOR EXAMINATION OF THE FORM. THEN SAY: <u>PLEASE TURN TO THE AIR FORCE-WIDE RATING FORM ON PAGE 16.</u>

    D. AIR FORCE-WIDE RATING FORM

This rating form does not evaluate technical job skill. It rates a person on elements important to overall success in the Air Force. This is the rating form mentioned previously that uses performance rather than proficiency as a basis for rating scale anchors. Again, you will utilize behavioral examples in making your ratings.

    E. SUPPLEMENTAL QUESTIONNAIRES

You will notice that there are several other questionnaires included in the booklet. On pages 1-2 is a General Background questionnaire which asks for information on yourself and the person you are rating. The Rating Form Questionnaire, found on pages 25-26, asks you to give an evaluation of the rating forms. The final item in the booklet is the Task Experience Ratings Questionnaire, which requires you to provide information as to how much experience you've had on various tasks. You will complete this questionnaire only on yourself, not on your peers, supervisors, or subordinates.

SAY: <u>ARE THERE ANY QUESTIONS REGARDING THE RATING FORMS?</u>

AFTER ALL QUESTIONS HAVE BEEN ANSWERED, COLLECT THE RATING FORM BOOKLETS. WHEN ALL BOOKLETS HAVE BEEN COLLECTED, SAY: <u>NOW TURN TO SECTION IV IN YOUR TRAINING BOOKLET.</u>

IV. Tips on Making Accurate Ratings

    A. GENERAL INFORMATION

The most important thing to remember when making your ratings is to <u>focus your attention only on the person you are rating, and only on the person's ability to perform.</u> Avoid comparing the person with coworkers you've rated previously or those you will subsequently evaluate.

Remember that even though you and the people you rate are similar because you are all Jet Engine Mechanics, each person has a unique set of strengths and weaknesses. Also, be aware that poor or outstanding performance in one area does not dictate the quality of performance in other areas. <u>Rate the person according to the individual's ability to perform on the job, and focus on observable behavior.</u> Finally, do not be afraid to use the entire range of the scale when appropriate. Your honesty will serve to ensure the accuracy of your ratings.

    B. EXERCISE

The following is a conversation between several engine crew chiefs. Read it and see if you can identify factors that might contribute to inaccurate ratings.

SAY: <u>TAKE A FEW MINUTES TO READ THIS CONVERSATION. WHEN YOU ARE FINISHED, WE WILL DISCUSS IT.</u>

    Andrews: Here we are again at our weekly gripe session.

    Baker: Yeah. Seems like we never run out of problems to complain about.

    Cullen: I don't know why you guys have so many problems on your crew.

Baker: Because we don't have the cream of the crop that you have.

Cullen: You've got the same kind of guys working for you that I have. Just think about it. All the airmen take tests to identify who has the aptitude for what. Right?

Andrews: Right.

Cullen: OK. So you've got a bunch of guys with mechanical aptitude. These guys all receive the same training at tech school to learn to be competent mechanics. They all come out of tech school with the same training. That's the purpose of tech school. So there shouldn't be anyone on your crew who is more qualified to do the job than someone else. Granted, if you take any one of the airmen and compare him to the average guy on the street, sure, he is going to look like a mechanical genius. But among his fellow crew members, he's just another average guy like all the rest.

Andrews: I disagree. On my crew, I've got a couple of guys who are just outstanding. Next to these guys, the rest of my airmen are way below average.

Baker: I know what you mean. I received a new recruit 2 weeks ago. You wouldn't believe how badly he has performed in the short time he's been here. I guess I've got a real loser on my hands. He'd be right at home with your guys, Andrews.

Davis: I guess I sort of understand what you are talking about, but on the other side of the coin. The last recruit that came onto my crew was fresh out of tech school. He had been here only a week or so and I gave him AFTO Form 349 to complete. Well, he completed the form without even asking a question and used the 06 Code Manual like a pro. I figure I have a super mechanic in this guy. I mean, if he can do that, he can do just about anything I assign him to do.

Andrews: You know, Cullen, I've heard how difficult you can be when you rate your airmen. I've heard some of your people complain that no matter how hard they try, you won't give them more than an average rating. They say they feel like they're banging their heads aginst a brick wall.

Cullen: I have a pretty good idea who you're talking about. If they think it's hard to get a good rating out of me now, just wait until I rate them next time. They'll find out how hard a brick wall really is.

Andrews: I guess I don't think like you guys at all. I try to be a friend to my airmen. Some of them are away from home for the first time and I don't like to make it any rougher on them than I need to. I try to give my airmen the benefit of the doubt when I'm rating them. You'd be surprised what you learn about your airmen if you try to be their friend. For instance, there's a guy on my crew now who reminds me of myself when I was his age. He's from a small town and joined the Air Force to get away from that atmosphere and see a little of the world. I can really identify with him.

Davis: Well, I don't know about being buddy-buddy with my airmen, but I do know that right now everyone in my unit is doing a good job as far as I'm concerned.

Andrews: Why is that?

Davis: Well, I'm up for promotion in a couple of months. And let's face it, the better my airmen look on their ratings, the better I look as a supervisor. And the better I look, the better my chances are for promotion!

WHEN IT APPEARS THAT EVERYONE HAS READ THE CONVERSATION, BEGIN THE DISCUSSION. SAY: THE THIRD TIME CULLEN SPEAKS, HE TALKS ABOUT HOW EVERY MEMBER OF HIS CREW HAS THE SAME TRAINING AND QUALIFICATIONS. HIS WAY OF THINKING DIRECTS HIM TO THE INCORRECT CONCLUSION THAT EVERYONE IS AVERAGE. HE IS LIKELY TO GIVE ONLY AVERAGE PERFORMANCE RATINGS TO HIS CREW MEMBERS, AND WILL PROBABLY NOT RECOGNIZE OUTSTANDING OR EVEN BELOW-AVERAGE PERFORMANCE.

ANDREWS MAKES A MISTAKE IN THE NEXT STATEMENT BY COMPARING CREW MEMBERS WITH EACH OTHER. THE LESSON HERE IS TO RATE EACH PERSON ACCORDING TO HIS/HER OWN ABILITY TO DO THE JOB.

BAKER FOLLOWS BY MAKING A JUDGMENT THAT A CREW MEMBER IS "A REAL LOSER" WHEN HE'S ONLY BEEN ON THE CREW A COUPLE OF WEEKS. WHEN YOU MAKE YOUR RATINGS, BE SURE TO BASE THEM ON A NUMBER OF OBSERVATIONS OF A PERSON'S PERFORMANCE AND NOT JUST ON ONE INCIDENT.

DAVIS MAKES THE NEXT MISTAKE WHEN HE ASSUMES THAT IF A CREW MEMBER CAN DO ONE TASK WELL, HE CAN DO EVERYTHING WELL. WHEN YOU MAKE YOUR RATINGS, TRY NOT TO MAKE THIS TYPE OF MISLEADING ASSUMPTION. IN OTHER WORDS, JUST BECAUSE A PERSON GETS A HIGH RATING ON ONE TASK OR DIMENSION, THAT DOESN'T MEAN THE PERSON WILL ALSO GET HIGH RATINGS ON THE OTHER TASKS OR DIMENSIONS. THE SAME APPLIES FOR LOW RATINGS.

ANDREWS STATES THAT CULLEN HAS A REPUTATION OF BEING AN UNREASONABLY TOUGH RATER, AND IN THE NEXT STATEMENT, CULLEN CONFIRMS THIS FACT. CULLEN IS NOT BASING HIS RATINGS ON OBSERVED BEHAVIOR. INSTEAD, HE IS USING THE LOW RATINGS AS A WAY TO GET REVENGE ON HIS CREW MEMBERS. SOME PEOPLE MIGHT USE HIGH RATINGS TO REWARD OTHERS. EITHER WAY IS UNFAIR. THE RULE HERE IS TO BASE YOUR RATINGS ON OBSERVED BEHAVIOR.

IN THE NEXT STATEMENT, ANDREWS INDICATES THAT HE IS A LENIENT, OR EASY, RATER. ON TOP OF THAT, ANDREWS IS LIKELY TO RATE A PERSON HIGHER IF THAT PERSON IS SOMEHOW SIMILAR TO HIMSELF IN BACKGROUND, INTERESTS, ETC. AGAIN, BASE YOUR RATINGS ON OBSERVED BEHAVIOR.

FINALLY, IN THE LAST STATEMENT, DAVIS IS ASSUMING THAT HIS OWN WORTH AS A SUPERVISOR IS ENHANCED BY THE FAVORABLE RATINGS HE GIVES HIS CREW MEMBERS. HE WOULD BE UNLIKELY TO GIVE LOW RATINGS BECAUSE THAT WOULD MAKE HIM LOOK BAD AS A SUPERVISOR. THE RATINGS YOU GIVE WILL IN NO WAY REFLECT ON YOU.

IN SUMMARY, THE ONE MOST IMPORTANT THING TO REMEMBER WHEN MAKING YOUR RATINGS IS TO FOCUS ON BEHAVIOR YOU HAVE OBSERVED AND BASE THE RATINGS ON THIS BEHAVIOR.

V. Practice Exercises for Rating Forms

Now you will have the opportunity to practice using two of the rating forms that have been discussed, the Air Force-Wide and the Dimensional. The purpose of these exercises is to help you become familiar and comfortable with the forms and to address any questions or concerns you might have regarding their use.

NOW TURN TO EXERCISE I IN YOUR TRAINING BOOKLET.

A. EXERCISE I - AIR FORCE-WIDE RATING FORM

Read the following story and use the information in it to complete a sample Air Force-Wide Rating Form on Airman Martin.

HAND OUT EXERCISE - AIR FORCE-WIDE RATING FORM.

THEN SAY: READ THE STORY AND COMPLETE THE RATING FORM. WE WILL DISCUSS YOUR RATINGS WHEN
EVERYONE IS FINISHED. PLEASE GO THROUGH THE ENTIRE FORM.

EXERCISE I

AIR FORCE-WIDE RATING FORM

*NOTE TO THE ADMINISTRATORS:

The underlined statements in Exercise I and II are justifications for ratings. The parenthetical
notation following each statement refers to the dimension/performance factor number and its
appropriate rating.

Airman Martin, an engine crew chief, was in the process of reassembling his engine when the
shop chief informed him that the engine had to be ready for final inspection by Friday.

Airman Martin said that there would be no problem meeting that deadline, and he quickly took
charge of the situation, gaining the support of his subordinates (5-5). Using his technical
knowledge and skills, he finished the assembly late Thursday afternoon but required supervision
during the buildup of the next section (1-3).

Prior to leaving, it was discovered that a tool was missing. Being a truthful individual,
and knowing the importance of the situation, Airman Martin informed the shop chief immediately
(4-5). Staying calm and in control, he volunteered, without hesitation, to stay until the tool
was found (2-5).

The next morning, Airmen Martin was informed to report to the Branch Chief at 1300. At 1300,
he reported to the Branch Office (3-4). The Branch Chief called him in and commended him on a
job well done and on his self-control in the situation of the missing tool (8-5). Also, the
Branch Chief said his appearance and military bearing were outstanding (6-5) and to keep up the
good work.

After getting off duty later that day, Airman Martin went to the Tech Order room to check out
some T.O.s to study the problem on the engine he was getting next (7-4).

WHEN IT APPEARS THAT EVERYONE HAS COMPLETED THE FORM, SAY: THERE ARE KEY STATEMENTS IN THIS
STORY THAT INDICATE THE RATING THAT AIRMAN MARTIN SHOULD RECEIVE ON EACH PERFORMANCE FACTOR OF
THE AIR FORCE-WIDE RATING FORM. LET'S GO THROUGH THE RATING FORM ONE FACTOR AT A TIME AND
DISCUSS THE RATINGS.

WHAT RATING DID YOU GIVE AIRMAN MARTIN ON PERFORMANCE FACTOR 1: TECHNICAL KNOWLEDGE/SKILL?

ALLOW TIME FOR MEMBERS OF THE GROUP TO ANSWER, THEN SHOW OVERHEAD OF FACTOR 1 AND SAY: THE
APPROPRIATE RATING WOULD BE A 3 ON THIS FACTOR BECAUSE THE SECOND PARAGRAPH STATES THAT AIRMAN
MARTIN NEEDED SUPERVISION TO COMPLETE A DIFFICULT PART OF HIS TASK. THAT STATEMENT CORRESPONDS
TO THE BEHAVORIAL EXAMPLE OF LEVEL 3. ANY QUESTIONS?

CONTINUE WITH EACH PERFORMANCE FACTOR IN THE FOLLOWING MANNER:

-    ASK THE GROUP FOR THEIR RATINGS

- SHOW THE APPROPRIATE OVERHEAD WITH RATING

- JUSTIFY THE RATING

- ASK FOR QUESTIONS OR COMMENTS

NOTE: IF THERE IS DISAGREEMENT ON SOME OF THE RATINGS, DO NOT GO INTO A LENGTHY DISCUSSION ABOUT THE DIFFERENCES. SOME OF THE RATINGS MAY BE JUDGMENT CALLS SINCE THEY ARE BASED ON LIMITED INFORMATION. CONSIDER IT TO BE SUFFICIENT IF A PERSON'S RATING IS WITHIN 1 POINT OF THE ASSIGNED RATING. EMPHASIZE TO THE GROUP THAT THE PRIMARY PURPOSE OF THE EXERCISE IS TO FAMILIARIZE THEM WITH THE RATING FORMS.

COLLECT EXERCISE I. THEN SAY:

NOW TURN TO EXERCISE II IN YOUR TRAINING BOOKLET.

B. EXERCISE II - DIMENSIONAL RATING FORM

Read the following story and use the information in it to complete a sample Dimensional Rating Form on Airman Jones.

HAND OUT EXERCISE II - FLIGHTLINE DIMENSIONAL RATING FORM. THEN SAY:

THIS RATING FORM HAS TWO VERSIONS. ONE IS SPECIFICALLY DESIGNED FOR FLIGHTLINE PERSONNEL; THE OTHER, FOR SHOP. FOR PRACTICE PURPOSES, WE WILL USE ONLY THE FLIGHTLINE FORM. NOW, PLEASE READ THE STORY, MAKE YOUR RATINGS, AND THEN WE WILL DISCUSS THEM.

EXERCISE II

DIMENSIONAL RATING FORM

During a recent Operational Readiness Inspection, Airman Jones was called upon to troubleshoot a starter system malfunction on a 674 aircraft. He was selected because he can complete most flightline maintenance tasks with some supervision (5-3).

Airman Jones required substantial assistance from his supervisor to diagnose that the starter control valve was inoperative (6-2). He removed and replaced the component in the required amount of time and without supervision (2-3). He also inspected his work after completing the task. Sgt Smith reinspected the installation of the starter control valve, finding only one minor discrepancy (3-3), which Airman Jones quickly corrected. Sgt Smith signed off the aircraft forms, and the aircraft departed on schedule.

After the aircraft's departure, Airman Jones completed the required AFTO Forms 349 and 350. He made all the proper entries, but needed some supervision in locating a couple of codes (1-3).

Later in the day, a request came in from another base to have an engine shipped to them as soon as possible. Airman Jones was assigned to perform a quality inspection on the engine before shipment. He made a thorough inspection of the engine. Sgt Davis from quality control came in and made a follow-up inspection and noted only four minor discrepancies (4-4). Airman Jones corrected the discrepancies, and the engine was prepared for air shipment.

CONDUCT THE DISCUSSION OF THE RATINGS IN THE SAME MANNER AS EXERCISE I, USING THE FOLLOWING GUIDELINES:

- ASK THE GROUP FOR THEIR RATINGS

- SHOW THE APPROPRIATE OVERHEAD WITH RATING

- JUSTIFY THE RATING

- ASK FOR QUESTIONS OR COMMENTS

VI. Conclusion

Now that you have become familiar with the rating forms and have practiced making ratings, you are ready to begin to use the forms to rate your performance or the performance of your co-workers or subordinates. Try to make the most accurate ratings possible, keeping in mind the tips that were discussed during this training session. Remember that the information collected on the rating forms will be used for research purposes only. It will not go into anyone's record or be seen by persons other than research personnel. Also, please read all instructions carefully.

COLLECT EXERCISE II AND THE TRAINING BOOKLETS.

APPENDIX F: TRAINEE BOOKLET

I. Introduction

For the next several hours, your time will be spent focusing on the rating forms you will complete as part this research project. You will use several rating forms to rate the performance of your coworkers and yourself. In addition, your supervisor and several coworkers will use the same forms to rate you.

Before you use any of the rating forms, we are going to talk about each form, its purpose, and how to use each form to effectively rate a coworker or yourself. We are also going to discuss some ideas that will help you use the rating forms and make the most accurate ratings possible.

It is essential to the outcome of this project that you be truthful and honest in your ratings. The ratings will not be seen by your coworkers, supervisors, or anyone else connected with your unit. The data collected will be seen only by Air Force Human Resources Laboratory personnel and the private contractor associated with this project. The information you provide will be coded to assure anonymity, and the rating forms will subsequently be destroyed. The ratings will be used for research purposes only and will in no way affect anyone's career. Therefore, please rate each person as accurately as possible.

II. Explanation of Rating Scale

A. Each rating forms uses a 5-point scale (5 high - 1 low). To help you make more accurate ratings, the points on the scale are labled, or anchored. You will notice that these anchors describe a certain level of proficiency. Proficiency refers to how skilled a person is at performing various tasks on the job, ignoring interpersonal factors (willingness to work, cooperating with others) or situational factors (lack of tools or parts, weather conditions).

B. One of the rating forms you will be using is not technical in its orientation. The scale anchors of this form refer to various levels of performance rather than levels of proficiency. The rating form will examine not only technical ability, but also other factors that contribute to a mechanic's performance on the job.

C. Three of the rating forms will include short paragraphs that describe behavior typical to each level on the scale. These behavioral examples will aid you in making your ratings.

III. Explanation of Rating Forms

A. Global Rating Form
    This rating form has two items. The first item asks for a rating of a person's overall technical proficiency. The second item asks for a rating of a person's overall social/interpersonal proficiency. This form utilizes behaviorial examples to aid you in making your ratings.

B. Dimensional Rating Form
    The purpose of this rating form is to evaluate a mechanic's proficiency on a number of important job areas or dimensions. Again, the behavioral examples will serve as a guide in determining your ratings.

C. Task Rating Form
    The purpose of this rating form is to evaluate proficiency on a variety of tasks critical to first-term Jet Engine Mechanics. This form contains tasks common to the J-57, J-79,

137

TF-33 engines and to the flightline and shop areas. It also contains items unique to the engine you work on and your functional area.

D. Air Force-Wide Rating Form

This rating form does not evaluate technical job skill. It rates a person on elements important to overall success in the Air Force. This is the rating form mentioned previously that uses performance rather than proficiency as a basis for rating scale anchors. Again, you will utilize behavioral examples in making your ratings.

E. Supplemental Questionnaires

You will notice that there are several other questionnaires included in the booklet. On pages 1-2 is a General Background questionnaire which asks for information on yourself and the person you are rating. The Rating Form Questionnaire, found on pages 25-26, asks you to give an evaluation of the rating forms. The final item in the booklet is the Task Experience Ratings Questionnaire, which requires you to provide information on how much experience you've had on various tasks. You will complete this questionnaire only on yourself, not on your peers, supervisors, or subordinates.

IV. Tips on Making Accurate Ratings

A. General Information

The most important thing to remember when making your ratings is to <u>focus your attention only on the person you are rating, and only on the person's ability to perform</u>. Avoid comparing the person with coworkers you've rated previously or those you will subsequently evaluate.

Remember that even though you and the people you rate are similar because you are all Jet Engine Mechanics, each person has a unique set of strengths and weaknesses. Also, be aware that poor or outstanding performance in one area does not dictate the quality of performance in other areas. <u>Rate the person according to the individual's ability to perform on the job, and focus on observable behavior.</u> Finally, do not be afraid to use the entire range of the scale when appropriate. Your honesty will serve to ensure the accuracy of your ratings.

B. Exercise

The following is a conversation between several engine crew chiefs. Read it and see if you can identify factors that might contribute to inaccurate ratings.

Andrews: Here we are again at our weekly gripe session.

Baker: Yeah. Seems like we never run out of problems to complain about.

Cullen: I don't know why you guys have so many problems on your crew.

Baker: Because we don't have the cream of the crop that you have.

Cullen: You've got the same kind of guys working for you that I have. Just think about it. All the airmen take tests to identify who has the aptitude for what. Right?

Andrews: Right.

Cullen: OK. So you've got a bunch of guys with mechanical aptitude. These guys all receive the same training at tech school to learn to be competent mechanics. They all come out of tech school with the same training. That's the purpose of tech

school. So there shouldn't be anyone on your crew who is more qualified to do the job than someone else. Granted, if you take any one of the airmen and compare him to the average guy on the street, sure, he is going to look like a mechanical genius. But among his fellow crew members, he's just another average guy like all the rest.

Andrews: I disagree. On my crew, I've got a couple of guys who are just outstanding. Next to these guys, the rest of my airmen are way below average.

Baker: I know what you mean. I received a new recruit 2 weeks ago. You wouldn't believe how badly he has performed in the short time he's been here. I guess I've got a real loser on my hands. He'd be right at home with your guys, Andrews.

Davis: I guess I sort of understand what you are talking about, but on the other side of the coin. The last recruit that came onto my crew was fresh out of tech school. He had been here only a week or so and I gave him AFTO Form 349 to complete. Well, he completed the form without even asking a question and used the O6 Code Manual like a pro. I figure I have a super mechanic in this guy. I mean, if he can do that, he can do just about anything I assign him to do.

Andrews: You know, Cullen, I've heard how difficult you can be when you rate your airmen. I've heard some of your people complain that no matter how hard they try, you won't give them more than an average rating. They say they feel like they're banging their heads against a brick wall.

Cullen: I have a pretty good idea who you're talking about. If they think it's hard to get a good rating out of me now, just wait until I rate them next time. They'll find out how hard a brick wall really is.

Andrews: I guess I don't think like you guys at all. I try to be a friend to my airmen. Some of them are away from home for the first time and I don't like to make it any rougher on them than I need to. I try to give my airmen the benefit of the doubt when I'm rating them. You'd be surprised what you learn about your airmen if you try to be their friend. For instance, there's a guy on my crew now who reminds me of myself when I was his age. He's from a small town and joined the Air Force to get away from that atmosphere and see a little of the world. I can really identify with him.

Davis: Well, I don't know about being buddy-buddy with my airmen, but I do know that right now, everyone in my unit is doing a good job as far as I'm concerned.

Andrews: Why is that?

Davis: Well, I'm up for promotion in a couple of months. And let's face it, the better my airmen look on their ratings, the better I look as a supervisor. And the better I look, the better my chances are for promotion!

V. Practice Exercises for Rating Forms

Now you will have the opportunity to practice using two of the rating forms that have been discussed, the Air Force-Wide and the Dimensional. The purpose of these exercises is to help you become familiar and comfortable with the forms and to address any questions or concerns you might have regarding their use.

A. Exercise I - Air Force-Wide Rating Form

Read the following story and use the information in it to complete a sample Air Force-Wide Rating Form on Airman Martin.

EXERCISE I

AIR FORCE-WIDE RATING FORM

Airman Martin, an engine crew chief, was in the process of reassembling his engine when the shop chief informed him that the engine had to be ready for final inspection by Friday.

Airman Martin said that there would be no problem meeting that deadline, and he quickly took charge of the situation, gaining the support of his subordinates. Using his technical knowledge and skills, he finished the assembly late Thursday afternoon but required supervision during the buildup of the next section.

Prior to leaving, it was discovered that a tool was missing. Being a truthful individual, and knowing the importance of the situation, Airman Martin informed the shop chief immediately. Staying calm and in control, he volunteered, without hesitation, to stay until the tool was found.

The next morning, Airman Martin was informed to report to the Branch Chief at 1300. At 1300, he reported to the Branch Office. The Branch Chief called him in and commended him on a job well done and on his self-control in the situation of the missing tool. Also, the Branch Chief said his appearance and military bearing were outstanding and to keep up the good work.

After getting off duty later that day, Airman Martin went to the Tech Order room to check out some T.O.s to study the problem on the engine he was getting next.

B. Exercise II - Dimensional Rating Form

Read the following story and use the information in it to complete a sample Dimensional Rating Form on Airman Jones.

EXERCISE II

DIMENSIONAL RATING FORM

During a recent Operational Readiness Inspection, Airman Jones was called upon to troubleshoot a starter system malfunction on a 674 aircraft. He was selected because he can complete most flightline maintenance tasks with some supervision.

Airman Jones required substantial assistance from his supervisor to diagnose that the starter control valve was inoperative. He removed and replaced the component in the required amount of time and without supervision. He also inspected his work after completing the task. Sgt Smith reinspected the installation of the starter control valve, finding only one minor discrepancy, which Airman Jones quickly corrected. Sgt Smith signed off the aircraft forms, and the aircraft departed on schedule.

After the aircraft's departure, Airman Jones completed the required AFTO Forms 349 and 350. He made all the proper entries, but needed some supervision in locating a couple of codes.

Later in the day, a request came in from another base to have an engine shipped to them as soon as possible. Airman Jones was assigned to perform a quality inspection on the engine before shipment. He made a thorough inspection of the engine. Sgt Davis from quality control came in and made a follow-up inspection and noted only four minor discrepancies. Airman Jones corrected the discrepancies and the engine was prepared for air shipment.

VI. Conclusion

Now that you have become familiar with the rating forms and have practiced making ratings, you are ready to begin to use the forms to rate your performance or the performance of your co-workers or subordinates. Try to make the most accurate ratings possible, keeping in mind the tips that were discussed during this training session. Remember that the information collected on the rating forms will be used for research purposes only. It will not go into anyone's record or be seen by persons other than research personnel. Also, please read all instructions carefully.

SAMPLE RATING FORM BOOKLET

J-79 SHOP

SELF-RATINGS

GENERAL INSTRUCTIONS

You are being asked to participate in a research project aimed at determining how useful different types of rating forms are for evaluating a first-term airman's job performance. Throughout the project, first-term Jet Engine Mechanics will be asked to complete these rating forms on themselves and some of their coworkers. In addition, NCOs who are direct supervisors of the airmen will be asked to provide evaluations.

The information provided from the rating forms will be used solely for <u>research purposes</u>. It will not be seen by other airmen or anyone else connected with your unit. In fact, we <u>are not concerned with the ratings an individual receives or with how an individual rates others</u>. The purpose of this project is to answer the question, "Which rating forms are most useful for making accurate evaluations?" These <u>ratings will in no way be associated with you or anyone involved</u>; so, please be totally honest in your evaluations.

Information will be collected from many Jet Engine Mechanics at a number of Air Force bases across the country. These data will help us decide which rating forms improve the chances of getting accurate evaluations. In addition, information will be gathered about recruit qualities that lead to success in the Air Force. Because subsequent decisions regarding the quality of the various rating forms will be based on information provided by participants such as yourself, it is essential that you take whatever time necessary to give the most accurate ratings possible.

This rating form booklet contains four main sections. First, you will be asked to complete a general background questionnaire that asks general questions about yourself, your jet engine experience, and your time in service. The second section contains four (4) different rating forms. Each rating form was developed through extensive contact with Jet Engine Mechanics. These job experts both developed and reviewed these forms; therefore, we believe the content of the forms accurately reflects the job of a Jet Engine Mechanic. These four ratings forms will include a 2-item <u>global</u> rating form, a more specific <u>dimensional</u> rating form, a detailed, <u>task-specific</u> form and an <u>Air Force-wide</u> rating form.

All ratings are made on a scale with five points (5-high, 1-low). A rating of 5 indicates that you <u>always</u> exceed the acceptable level of proficiency; and a rating of 1, that you <u>never</u> meet the acceptable level of proficiency. Specific instructions for completing each rating form are included as part of the form.

The third section, Rating Form Questionnaire, asks for your reactions concerning the usefulness of the four different rating forms. The fourth section asks you to describe how much experience you have had performing tasks representative of what a first-term Jet Engine Mechanic does on the job. Please complete all four sections of this booklet.

Thank you very much for giving this your careful attention.

APPENDIX G: WTPT TEST ADMINISTRATOR TRAINING AGENDA

Date: 2-12 September 1986
Place: 328X0 - Room 218, Bldg 578
        272X0 - Room 175, Bldg 578
        492X1 - Room 1R, Bldg 180

Day 1 - Tuesday, 2 Sep 86

    AFHRL Introduction
    JPM Project Overview
    Baseline Scoring Exercise (Proctors not present)
    Distribute Test Administrator Materials (Proctors not present)

    *Proctors and Test Administrators for all specialties will receive
        Introduction and Overview in Room 218.

Day 2 - Wednesday, 3 Sep 86

    Test Administrator Requirements (4 hours)
        WTPT Administrator's Manual
        General Logistics
        Special Requirements/Other

    Hands-On Instrument Training (4 hours)
        Look at Instruments and Begin to Discuss Overall Performance Ratings
        Phase I Hands-On Task Training

Day 3 - Thursday, 4 Sep 86

    Hands-On Instrument Training
        Continue Phase I Hands-On Task Training (Proctors not present)
        Phase II Hands-On Task Training (Proctors not present)

Day 4 - Friday, 5 Sep 86

    Interview Training
        Lecture on Interviewing
        Modeling Exercise
        Role-Playing
        Phase I Interview Task Training

Day 5 - Monday, 8 Sep 86

    Phase II Interview Task Training (4 hours, Proctors not present)
    WTPT Answer Sheet Training (4 hours, Proctors present)

Day 6 - Tuesday, 9 Sep 86

    Post-Training Test (4 hours, Proctors not present)
    Train on Control Group Tasks (4 hours, Proctors not present)
    Wrap up Overall Performance Ratings

Day 7 - Wednesday, 10 Sep 86

    Team Development
        Role Clarification
        In-Depth Logistics
        "A Day in the Life of a Test Administrator"

Day 8 - Thursday, 11 Sep 86

    Proctors' Rater Training Dress Rehearsal - Test Administrators and
        AFHRL Personnel Observe

Day 9 - Friday, 12 Sep 86

    For 492X1 and (possibly) 272X0 - Criticality/Importance Ratings
    For 328X0 - Time to Proficiency
    Space Perception Test
    Material Assembly/Last-Minute Details
    Pep Rally

APPENDIX H: NOTES ON COLLECTION/DISCUSSION OF
INTERRATER RELIABILITY INFORMATION

I. Introduction: Three major components.
   A. Shadow scoring.
   B. Field Test Administrator (TA) Facilitation.
   C. Calibration.

All involve proctors directing test administrator (TA) training--the focus is to move TAs toward consistency/accuracy of incumbent observation/scoring.

II. Shadow Scoring.

   A. Objective: to collect information on how TAs score individuals during field test.

   B. Procedures.

       1. At each base have TAs score several incumbents together.
          (a) Number of incumbents scored this way depends on total number of incumbents to be tested and projected length of stay.
          (b) Optimal number to be tested 3-5.
              (1) Key constraint--can total WTPT testing be completed in alloted time?
              (2) If extra shadow scoring forces stay at base to extend over weekend, or will interfere with projected arrival at next base, reduce number of incumbents to be shadow scored.

       2. Proctor should estimate (prior to testing) required testing time/logistical constraints, and make decision on number of incumbents to be shadow scored. If questions arise, contact UES or AFHRL for input.)

       3. For each shadow-scored incumbent, proctor should designate one TA as primary (TA who will interact with incumbent); primary role should be rotated between TAs for each incumbent.

       4. Proctor should ensure that TAs score independently (without interaction or knowledge of how other TA is scoring); independent scoring is critical and should be emphasized by proctor.

       5. At end of day, meet with TAs and go over booklets.
          (a) Talk about differences found and why.
          (b) Try to reach agreement about what the score (go/no go) on each step should have been.
          (c) Talk about overall performance score and why rating was given.
              (1) Once again try to reach consensus about what rating was correct.
              (2) It may be useful to revisit performance criteria to be used (as discussed in TA training sessions at AFHRL).

       6. DO NOT CHANGE ANY SCORES as a result of discussions; original scores must be entered on opscan forms.

146

7. Repeat this procedure each day until shadow scoring ends.

C. Concluding Comments.

1. Interrater reliability observations from each trip need to be compiled and used upon return to San Antonio and/or at next base.

2. Information should be analyzed and discussed with TAs in terms of:
(a) Identifying TA problems.
(b) Specific tasks identified that need additional videotape training/discussion.
(c) General thoughts/comments concerning procedures to follow in future test administrations.

3. All observations/information gathered should be documented.

III. Field Test Administration Facilitation.

A. Objective is to observe test administration; save problems/peculiarities/issues for later discussions with TAs.

B. Procedures.

1. During test administration, proctors should monitor scoring by TAs, noting:
(a) Discrepancies in marking booklets.
(b) Excessive interaction with incumbent/improper probing during interview.
(c) Problems with building rapport, deviations from proper procedures, transition between tasks, etc.

2. At appropriate time (end of day, end of incumbent testing, end of task), discuss problems noted.
(a) Seriousness of problems should dictate when discussion between proctor and TA occurs.
(b) At end of each day, proctor should meet with TAs to discuss activities/observations of the day.

C. Concluding Comments.

1. Prior to returning to San Antonio (or arrival at next base), information gathered in the field should be collated and documented.

2. As problems/concerns arise, proctors may want to communicate with each other, or call UES or AFHRL if additional clarification is needed.

IV. Test Administrator Calibration.

A. Objective: Using videotapes and discussion, proctors should review task scoring and calibrate/retrain TAs to previous levels of accuracy/consistency.

B. Procedures.

1. When teams return to San Antonio, workshop should be held (a maximum of 5 days will be available for this activity, but hopefully 3 days will be sufficient).

2. Prior to workshop, proctors for a specialty should meet and discuss field observations, problem tasks, etc. for discussion in workshop.

3. Topics of discussion:

   (a) Observations in the field.
   (b) Review of all videotapes in same manner as used in original workshop.
       (1) Each task observed/scored.
       (2) Scoring discussed after each task; aim is to ensure TA
       accuracy/consistency of observing and scoring.
       (3) Overall performance score should also be discussed in the same manner;
           criteria used to arrive at decision should be emphasized.
   (c) Specific problem tasks noted in field should be emphasized, and possibly
   observed/scored several times.
   (d) Some tasks have been videotaped correctly and incorrectly (several versions),
   and consequently provide additional tapes to be observed/scored/discussed.

4. Scored booklets should be retained (with original scores recorded) for later
analysis.

5. Proctor should be satisfied that problems have been corrected before ending workshop.

C. Concluding Comments.
   1. After first return to San Antonio for team; subsequent recalibration may occur in
   the field prior to data collection if videotape equipment/facilities can be obtained.

   2. During this workshop, additional areas to work on may include:
      (a) Interviewing skills (probing techniques, etc.)
      (b) Logistical issues.

*NOTE TO ADMINISTRATORS:

The underlined statements in Exercise I and II are justifications for ratings. The parenthetical notation following each statement refers to the dimension/performance factor number and its appropriate rating.

EXERCISE I: AIR FORCE-WIDE RATING FORM

   Martin, a first-term radio operator, was in the process of configuring his radio equipment when the shift supervisor informed him there was a priorty phone patch coming through at any moment.

   Martin said there would be <u>no problem in handling the patch; and he quickly took charge of the situation, gaining the support of his subordinates (PF5-5)</u>. Using <u>technical knowledge and skills, he completed configuring his radio, but required supervision to engage the phone patch equipment (PF1-3)</u>.

   Prior to leaving for the day, it was discovered that <u>a call sign list was missing. Being a truthful individual, and knowing the importance of the situation, Martin informed the shift supervisor immediately (PF4-5)</u>. <u>Staying calm and in control, he volunteered without hesitation to stay until the call sign list was found (PF2-5)</u>.

   The next morning, Martin was instructed to <u>report to the Director of Operations at 1300. At 1300, he reported to the DO office (PF3-4)</u>. The DO called him in and commended him on a job well done and on <u>his self-control in the situation of the missing call list (PF8-5)</u>. Also, the DO <u>said his appearance and military bearing were outstanding (PF6-5)</u> and to keep up the good work.

   After getting off duty later that day, Martin went to the publication room to check out some <u>T.O.s to study the radio equipment he must qualify on next (PF7-4)</u>.

EXERCISE II: DIMENSIONAL RATING FORM

During a recent Operational Readiness Inspection, Jones was called upon to configure the Scope Signal III and operate a radio. <u>He was selected because he can complete most radio configuration tasks with only some supervision (D1-3)</u>. <u>Jones required substantial assistance from his supervisor when coordinating with HQ SAC to handle an aircraft emergency (D2-2)</u>. <u>He received and transcribed several messages with only minor errors (D5-4)</u>. <u>He also verified the incoming messages using a call sign list without supervision (D3-5)</u>. Finally, <u>he completed the required AF 1020. He made all the proper entries, but needed some supervision in completing the remarks column (D4-3)</u>.

END

11-87

DTIC